OHIO WEATHER FOR 1912

OHIO
Agricultural Experiment Station

WOOSTER, OHIO, U. S. A., MARCH, 1913.

BULLETIN 259

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BULLETIN

OF THE

Ohio Agricultural Experiment Station

NUMBER 259 MARCH, 1913.

OHIO WEATHER FOR 1912

BY J. WARRAN SMITH AND C. A. PATTON

EXPLANATORY

BY THE DIRECTOR

The extension of the work of the Experiment Station over the state, through the district and county experiment farms, makes it necessary that its weather records should be state-wide in their application. Hitherto the only attempt at such application has been to give the average rainfall and temperature for the entire state for comparison with the observations taken at the main station at Wooster, but it is now possible, through the cooperation of Prof. J. Warren Smith, Section Director for Ohio of the U. S. Weather Bureau, to supplement these records with a series of diagrammatic maps, showing at a glance the comparative weather conditions for the different sections of the state.

These maps will be followed by the usual summary tables.

Mean Temperature (Normal) January

Figure 1. Normal temperature for January. The figures show the average temperature at the different points for the total length of time covered by the observations. In no case is the period less than 10 years and it may be 50 years or more. At Portsmouth the average is for 81 years and at Marietta 68 years. The figures have been entered to whole numbers and the lines of equal temperature drawn rather freely across the state. The lines are drawn for each two degrees. The warmest part of the state is in the extreme south and the coldest in the northwest. The normal temperature for the State is 28°.

Mean temperature, January, 1912

Figure 2. Average temperature for January, 1912. This was one of the coldest months on record in Ohio. The minimum temperature was close to or below zero from the 4th to 17th. The highest maximum temperature during the month was only 57° at Ironton. This is the lowest maximum for the state since the weather service was established in 1882. The lowest temperature recorded was —37° at Milligan, Perry county, and this is the lowest on record, except —39° at the same station on February 10, 1899. Water pipes were badly frozen, potatoes and other vegetables greatly damaged, peach buds were almost universally killed except on the highest ground in southern counties and on the islands in Lake Erie.

Temperature departures, January, 1912

Figure 3. Departure of the temperature from the normal, January, 1912. The mean temperature for the state was 10.3° below the normal. It averaged 13° a day below the normal in Sandusky county and 12° below at quite a number of stations. There were but few days during the entire month when the temperature was above the normal. From the 4th to 17th, inclusive, there occurred one of the most prolonged spells of severely cold weather ever experienced in Ohio. During the entire time the minimum temperature was below or close to zero, and on the 13th it was over 30° below zero at eight stations in eastern and southern counties. The amount of suffering among the poor in the cities was very great. Several deaths from exposure were reported.

Normal precipitation for January

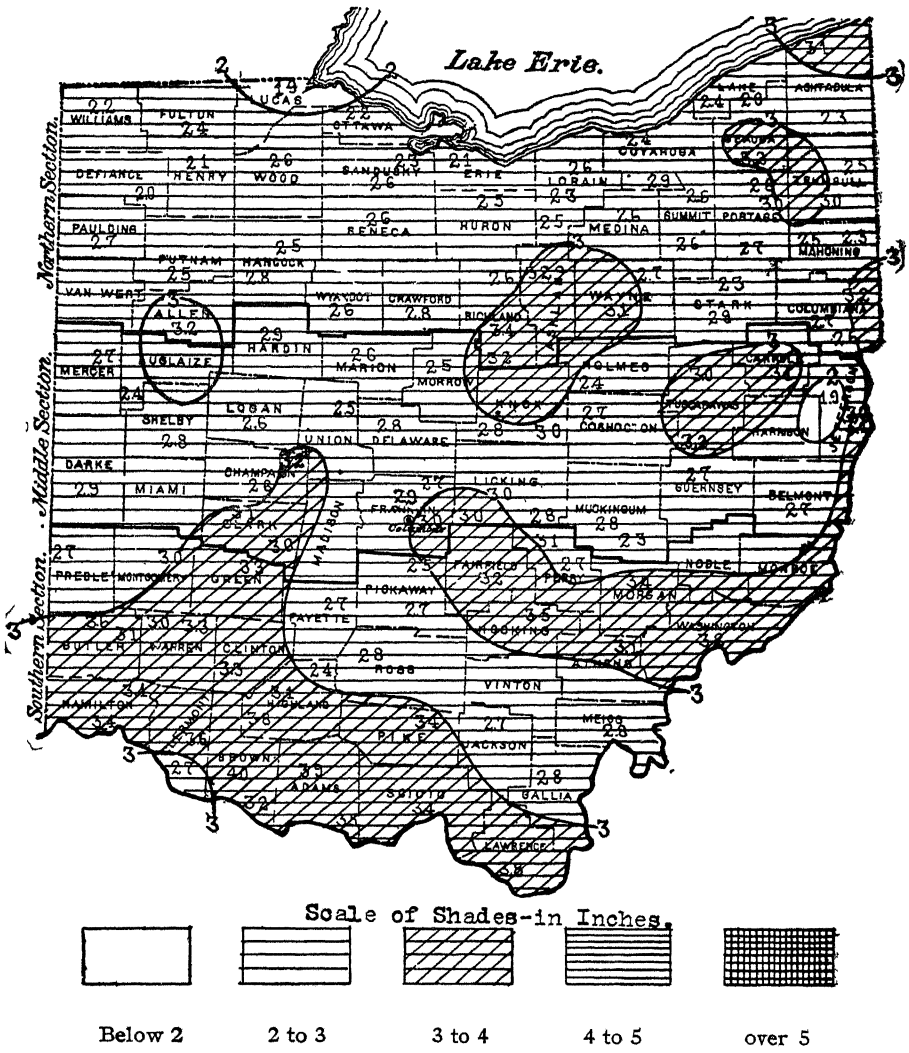
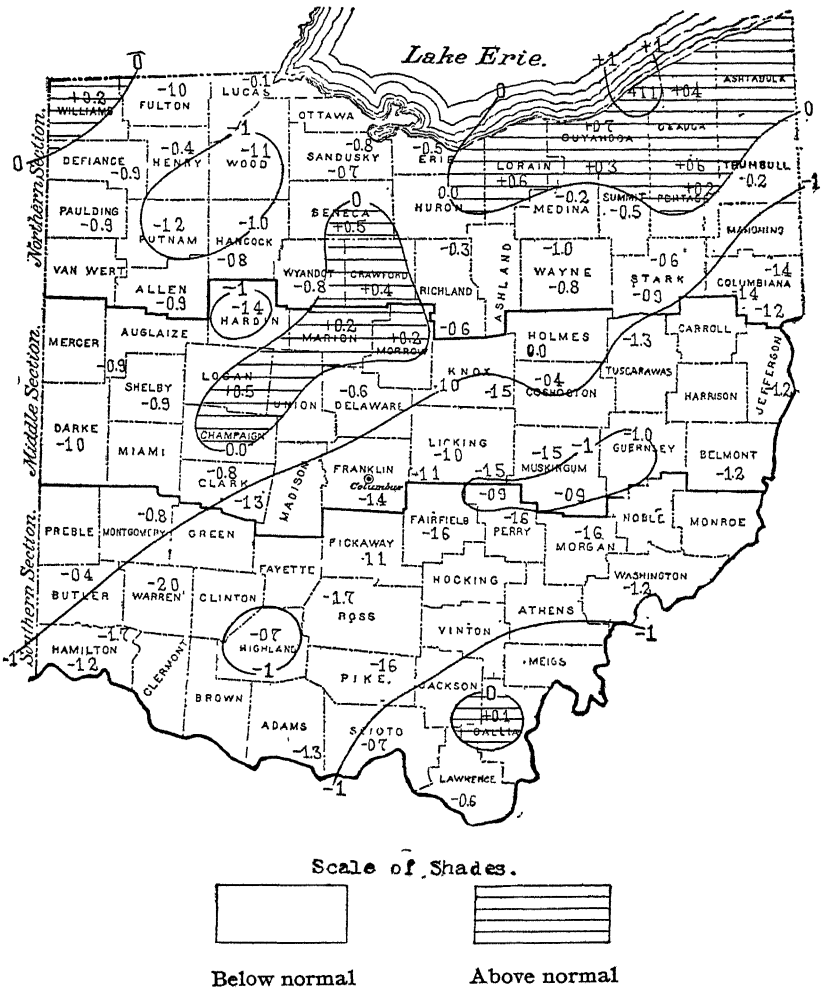


Figure 4. Average precipitation for January. The data are obtained by getting the average at each station for January for all the years that observations have been taken. In each case the record is for 10 years or more, and in the case of Marietta it is for 92 years, Portsmouth 81 years and for Cincinnati 77 years. Equal rainfall lines are then drawn for each inch of precipitation and the areas are shaded as indicated by the key. The precipitation is well distributed over the state. The average for the state for this month is 2.97 inches.

Figure 5. Total precipitation, January, 1912. The rain and melted snow averaged 2.12 inches for the state and was heaviest in the extreme south and in the northeast. No heavy precipitation occurred but rain or snow fell on an unusually large number of days.

Precipitation departures, January, 1912



Scale of Shades.

Below normal Above normal

Figure 6. Departure of the precipitation from the normal, January, 1912. The precipitation was slightly above the normal in a few districts but the average for the state was 0.68 inch below the normal. The streets and roads were very icy during the latter part of the month.

Snowfall, January, 1912

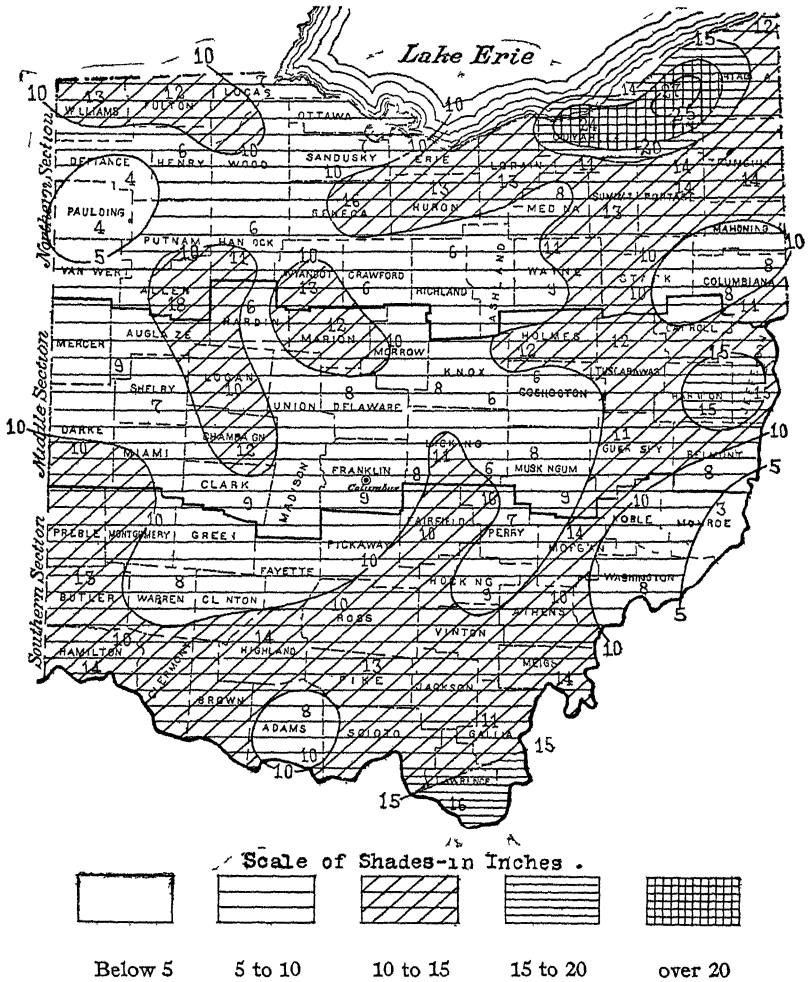


Figure 7. Total snowfall, January, 1912 The snowfall for January was slightly above the normal for this month. Most of the precipitation during the month was in the form of snow, and over most of the state the ground was covered with snow from the 6th to the close of the month.

Mean temperature (normal) February

Figure 8. Normal temperature for February. This month averages colder than January at the high altitude stations in northern counties but is warmer than January along the lake and in much of the southern districts. The normal for the state is 27°.

Mean temperature, February, 1912

Figure 9. Average temperatures for February, 1912. The unusually cold weather of January continued until the middle of February and made one of the longest low temperature periods in the history of the state. The ground was frozen to an unusual depth and there was much damage by the bursting of gas and water pipes. Between three and four hundred cases of frozen water pipes were reported to the Columbus Water Works Department.

Temperature departures, February, 1912

Figure 10. Departure of the mean temperature from the normal, February, 1912. It continued very cold during the first half of the month, making, with January, one of the most prolonged cold spells ever recorded in the state. At Columbus the mean temperature from January 1 to February 14 was 11.6° below the normal and was lower than for any other 45-day period in the history of the station. The second half was warmer, although there were two short periods when the temperature ranged considerably below the normal. The whole month averaged 4.4° below the normal.

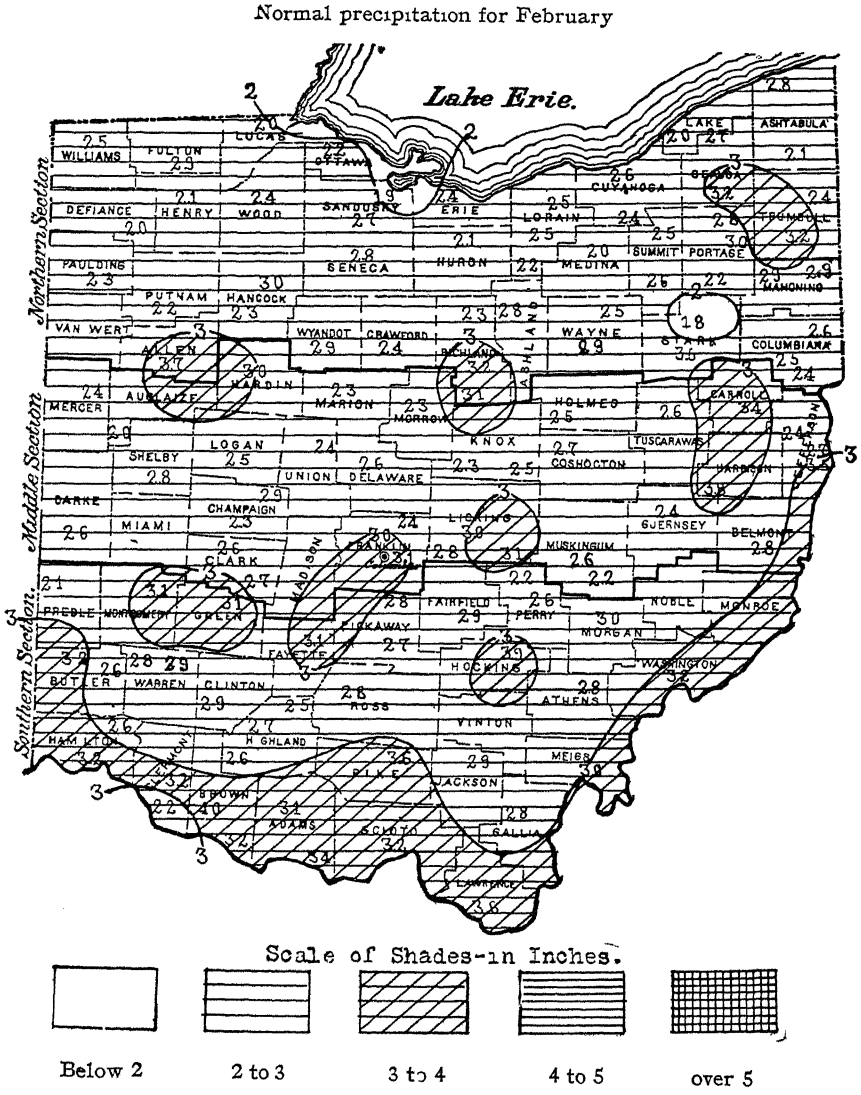


Figure 11. Average precipitation for February. The greatest fall is along the Ohio river and the least near the western part of Lake Erie, and in northern Stark county. The average fall for the state is 2.88 inches.

Precipitation, February, 1912

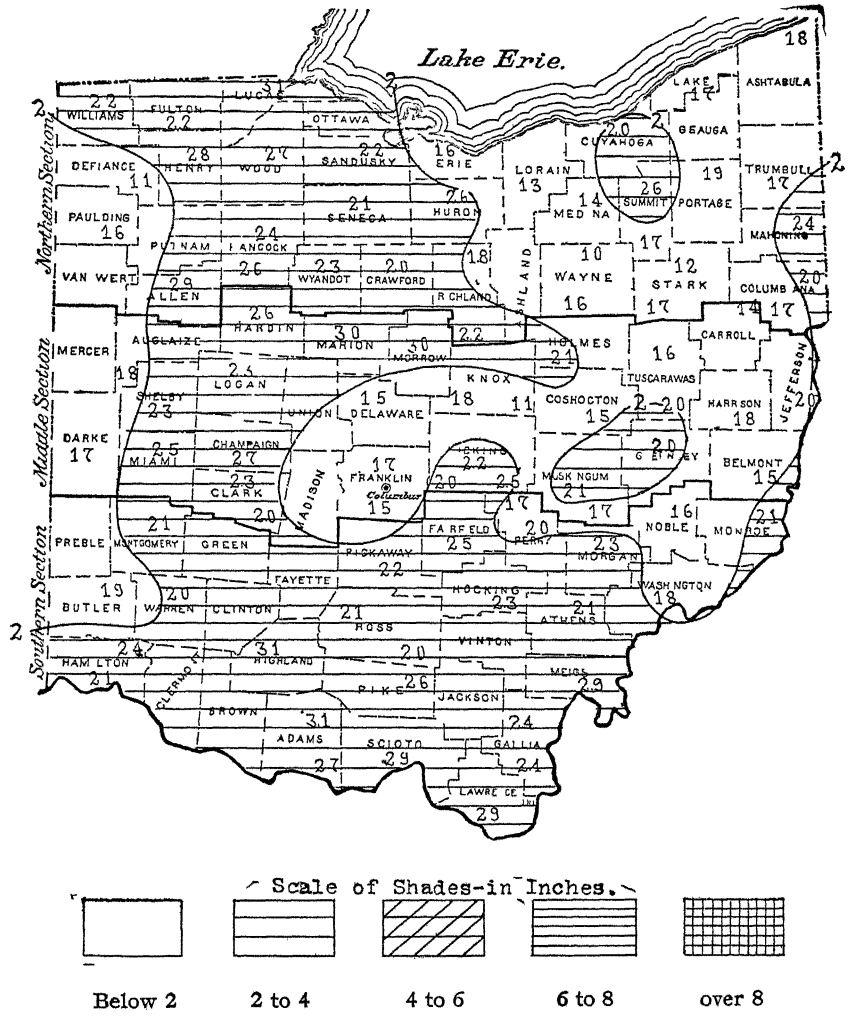
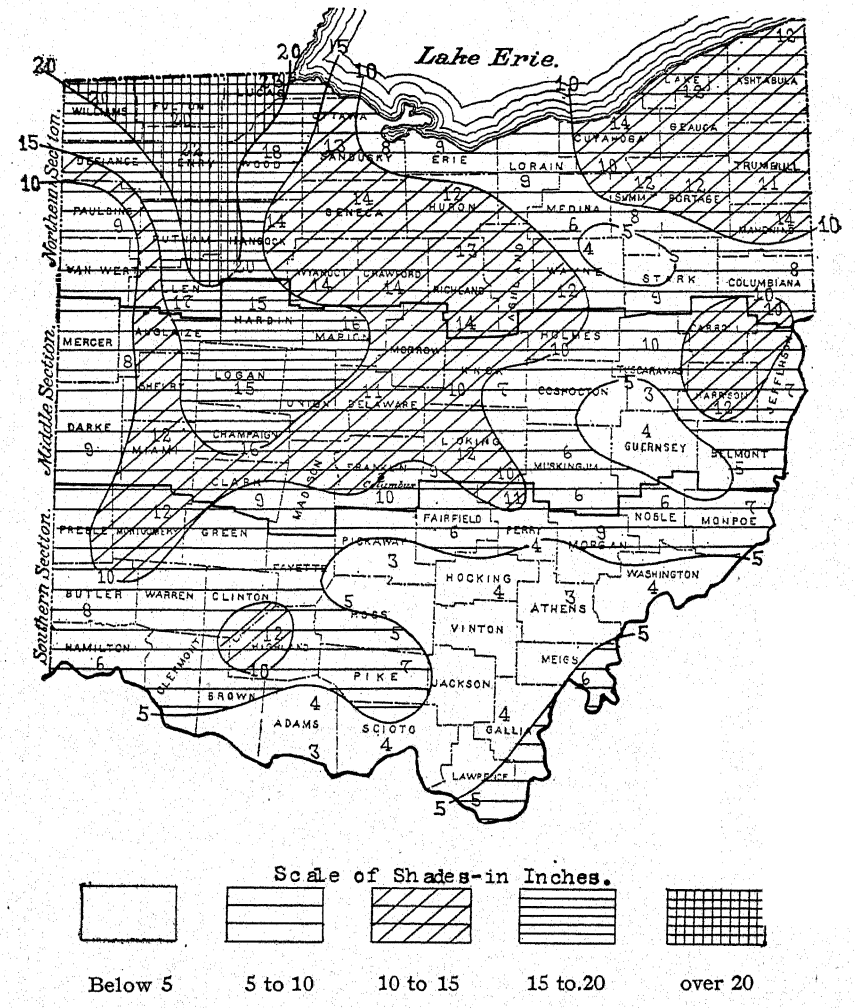


Figure 12. Total precipitation, February, 1912. The precipitation was well distributed and averaged 2.08 inches for the state. During the first half of the month it was generally light and mostly in the form of snow. The last part of the month was much more stormy than the first.

Precipitation departures, February, 1912

Figure 13. Departure of the precipitation from the normal, February, 1912. The precipitation averaged 0.61 inch less than the normal and was below the normal in nearly all districts. Some damage was caused by the breaking up of the ice in the large rivers and the forming of ice gorges.

Snowfall, February, 1912



Scale of Shades-in Inches.

Below 5 5 to 10 10 to 15 15 to.20 over 20

Figure 14. Total snowfall, February, 1912. The snowfall was generally above the normal, while in northwestern counties it was nearly double the usual amount. Much of this excessive amount in the northwest occurred in the storm of the 21st and 22nd, when damage was done by wind, sleet and snow. The ground was generally covered with snow during the first part of the month and during about half of the last part.

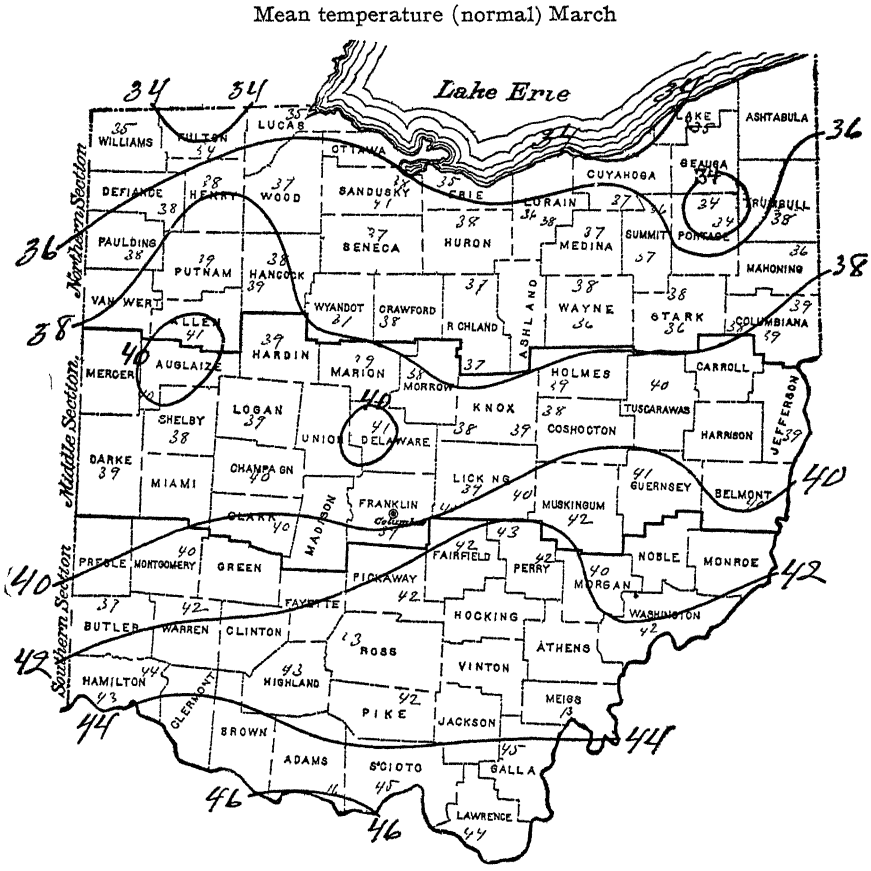


Figure 15 Normal temperature for March. The normal temperature for Ohio for March is 39°, or 12° higher than in February. The lowest for the month is near the Lake.

Mean temperature, March, 1912

Figure 16. Average temperatures for March, 1912. This was one of the coldest months of March on record. Following the cold weather of January and February, the three months gave the lowest mean temperature recorded since 1885. At Marietta, where there is a temperature record of 90 years, there have been only three periods of three months with lower mean temperatures—these were 1856, mean, 25 4°, 1885, mean, 28 4°, 1895, mean, 28 9°. This year it was 30 4°. The ground was frozen throughout the month and there were practically no building operations or farm work.

Temperature departures, March, 1912

Fig. 17. Departure of the mean temperature from the normal, March, 1912. The temperature averaged 6.6° a day below the normal and was 11° below the normal in parts of Sandusky and Allen counties The average temperature was below the normal on nearly every day during the month. Rivers and streams were covered with an unusual thickness of ice due to the extremely cold weather of the three months.

Normal precipitation for March

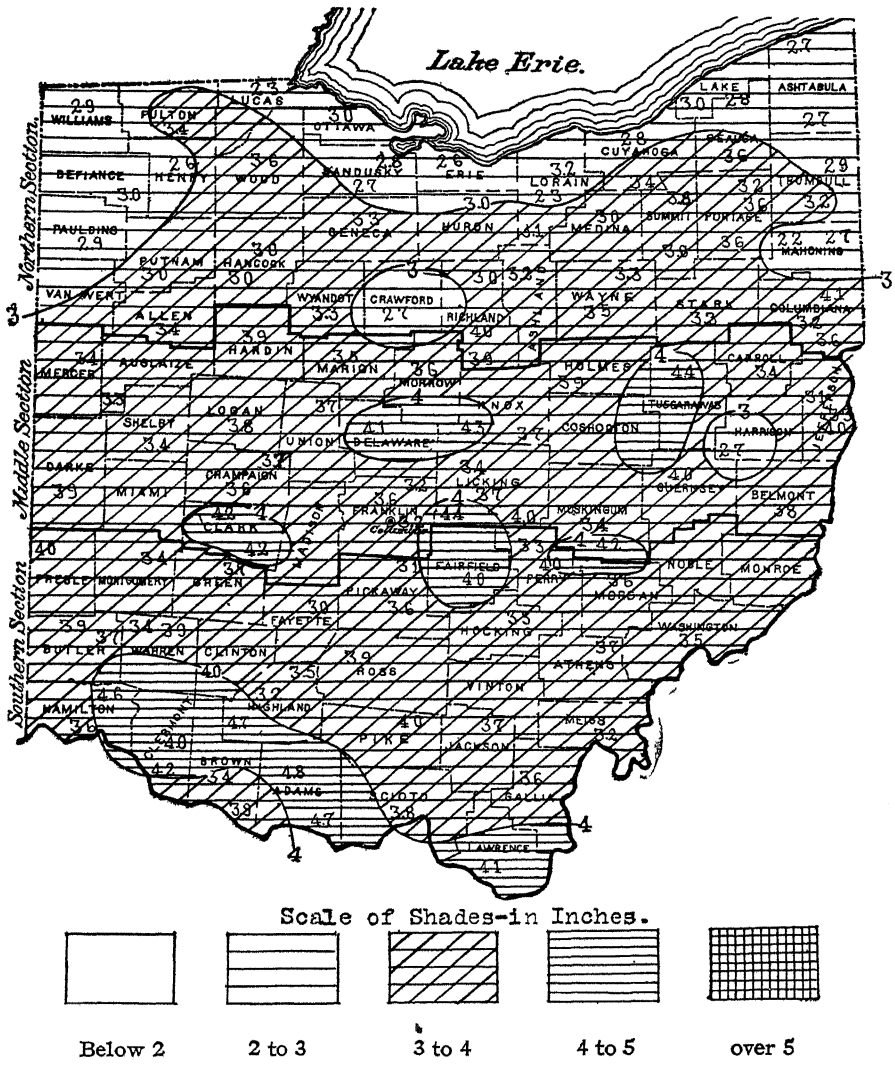


Figure 18. Average precipitation for March. The precipitation for March averages slightly higher than for either of the winter months, being 3 33 inches. The greatest fall is in central and southern counties and the least in the north.

Precipitation, March, 1912

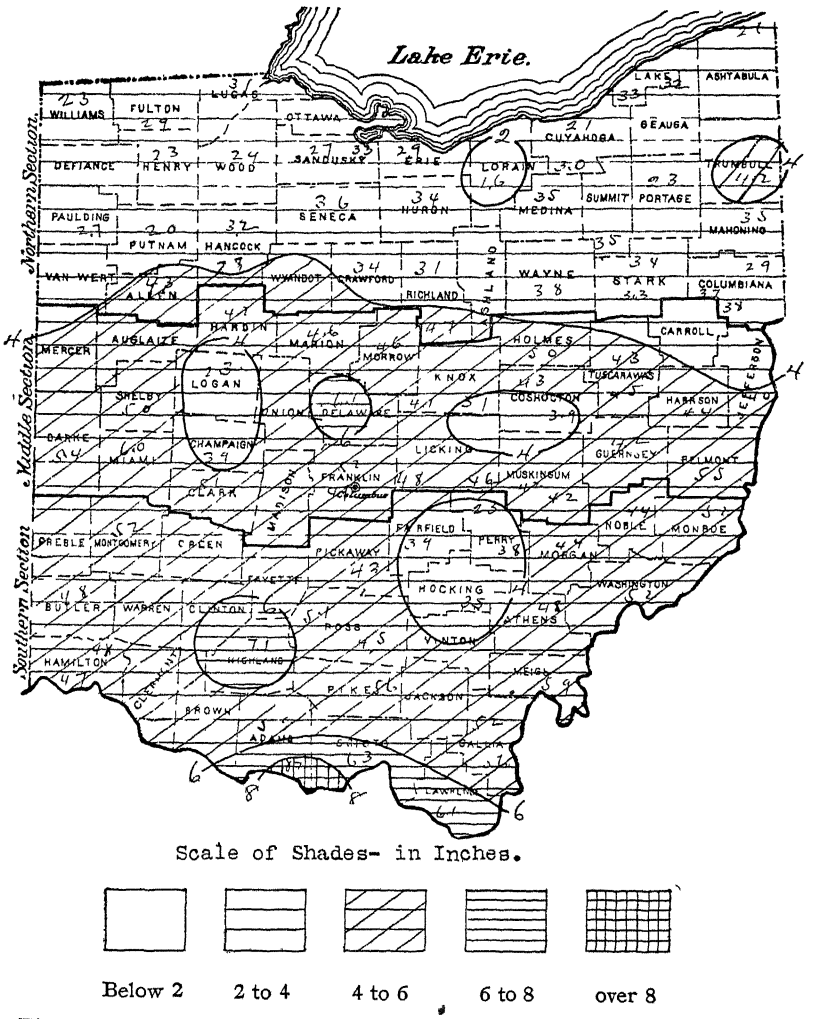


Figure 19. Total precipitation, March, 1912. The precipitation averaged 4.17 inches for the state. It was over 8 inches in southern Adams county and below 2 inches in Lorain county. It was frequent during the month. The weather was unfavorable for outdoor employment. Some damage was done by lightning on the 19th in Cincinnati. The ice in the rivers was broken up by rain and high temperature near the middle of the month, and during the last 15 days ice gorges were formed and high water occurred. The water was especially high in the Maumee and Sandusky rivers and considerable damage resulted.

Precipitation departures, March, 1912

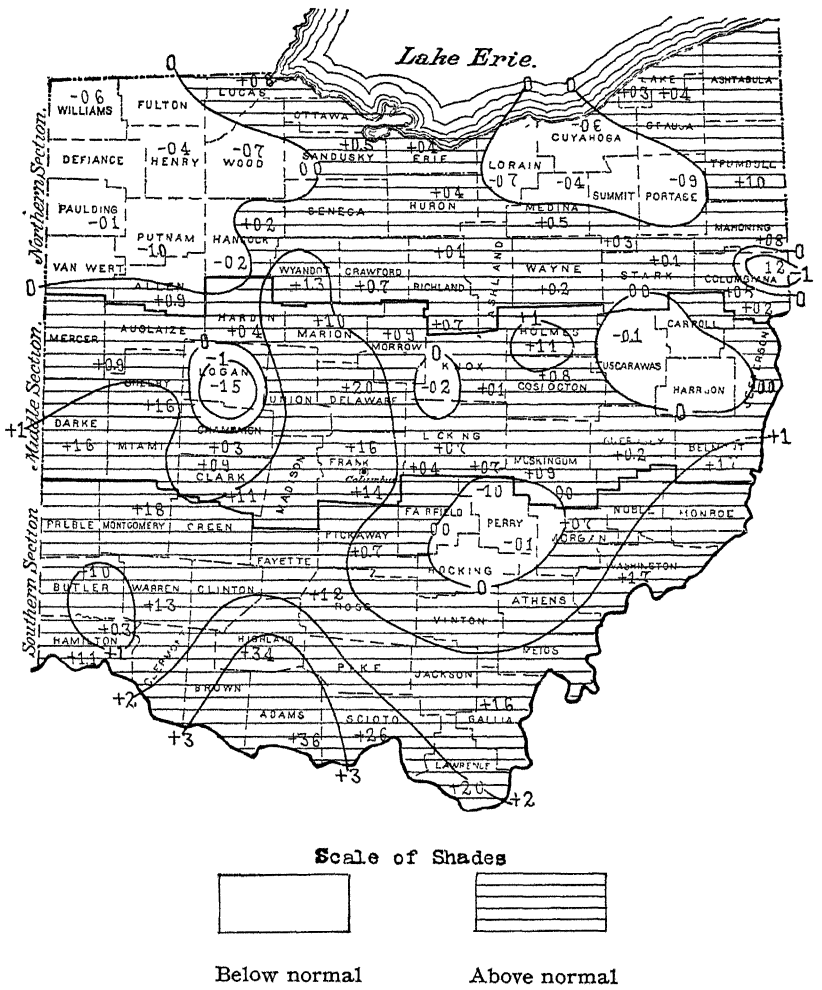


Figure 20. Departure of the precipitation from the normal, March, 1912. The precipitation was above the normal in most counties and averaged 0.59 inch above for the state. Precipitation was frequent.

Snowfall, March, 1912

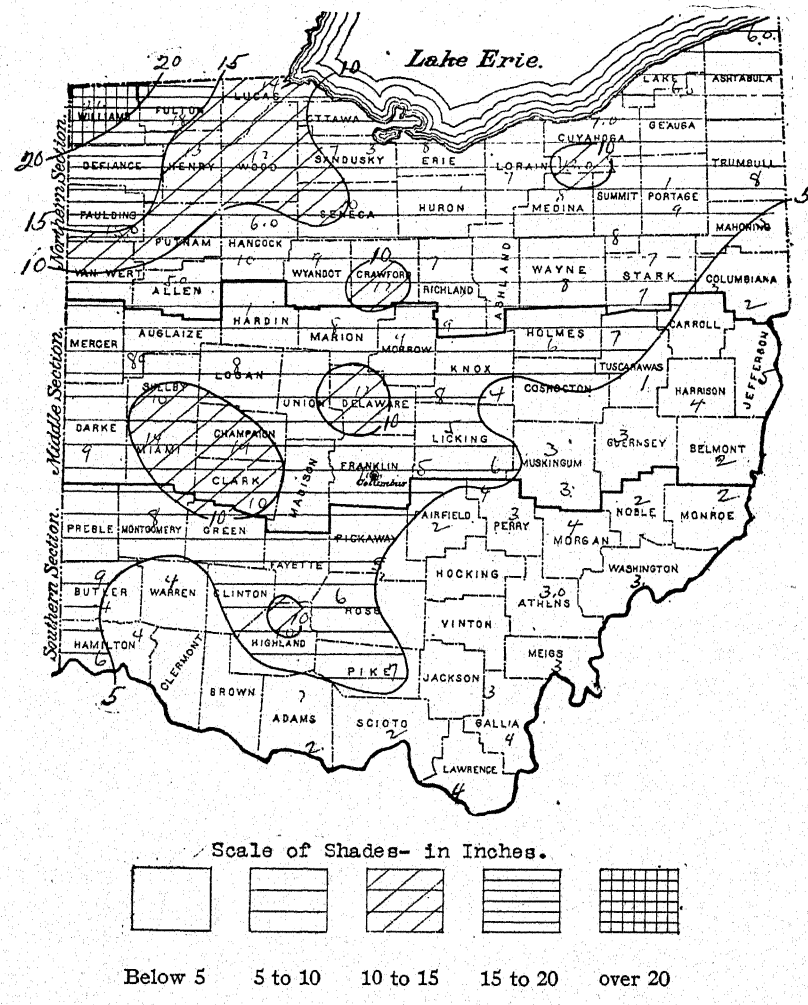


Figure 21. Total snowfall, March, 1912. The snowfall was above the normal for March, except in southeastern counties, where very little snow fell after the 11th. The fall was considerably greater than usual in northwestern districts. Traffic was hindered in northern counties by sleet and snow on the 20th and 21st and by snow on the 24th. In some central and most northwestern counties the ground was covered with snow most of the month.

Mean temperature (normal) April

Figure 22. Normal temperature for April. The rise in temperature during the spring in this state is very steady. The average for April is 49°. The coolest weather is in the extreme northeast.

Mean temperature, April, 1912

Figure 23. Average temperatures for April, 1912. The temperature was moderate with no extremely high or low readings. Freezing temperatures were general during the last 10 days. As the season advanced it was seen that the damage by the cold of the preceding months was very great.

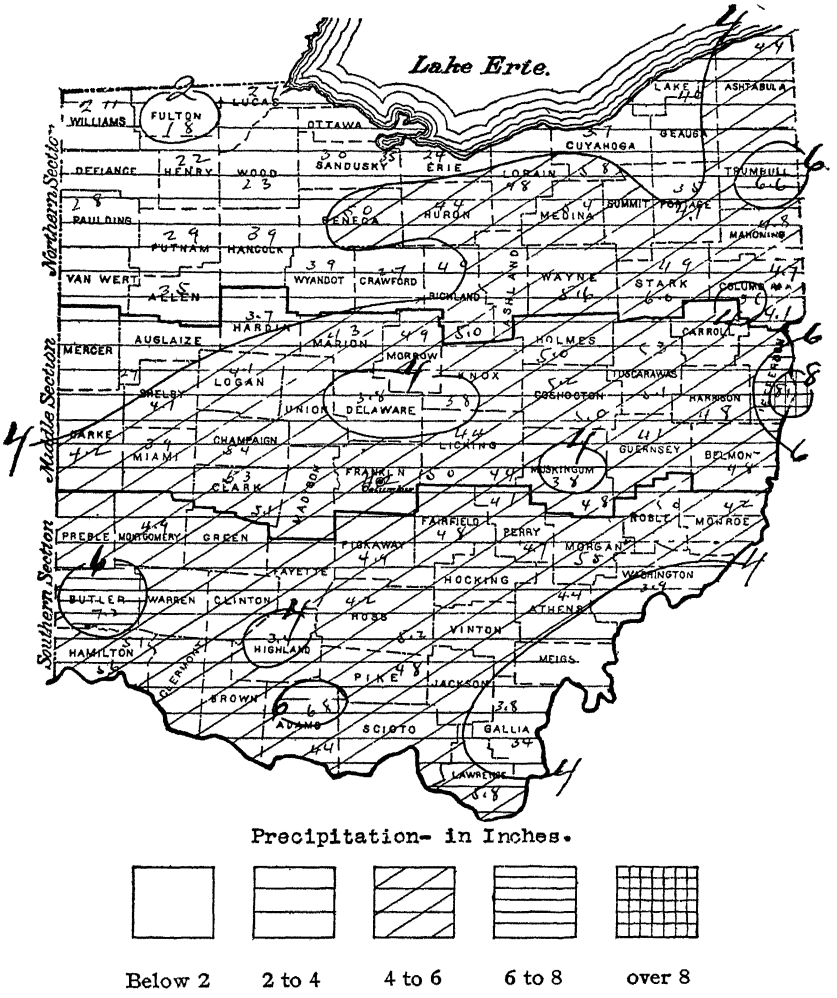
Temperature departures, April, 1912

Figure 24 Departure of the mean temperature from the normal, April, 1912. The temperature was above the normal except in Hardin county and averaged 2 5° above for the state The 2nd and 3rd were quite cold but a warm spell followed which lasted until the 16th There were no extremely high or low temperatures.

Normal precipitation for April

Figure 25. Average precipitation for April. The distribution of the precipitation in April is quite different from that in March as will be seen by comparing this chart with No. 18. The average fall for the state is 3.03 inches.

Precipitation, April, 1912

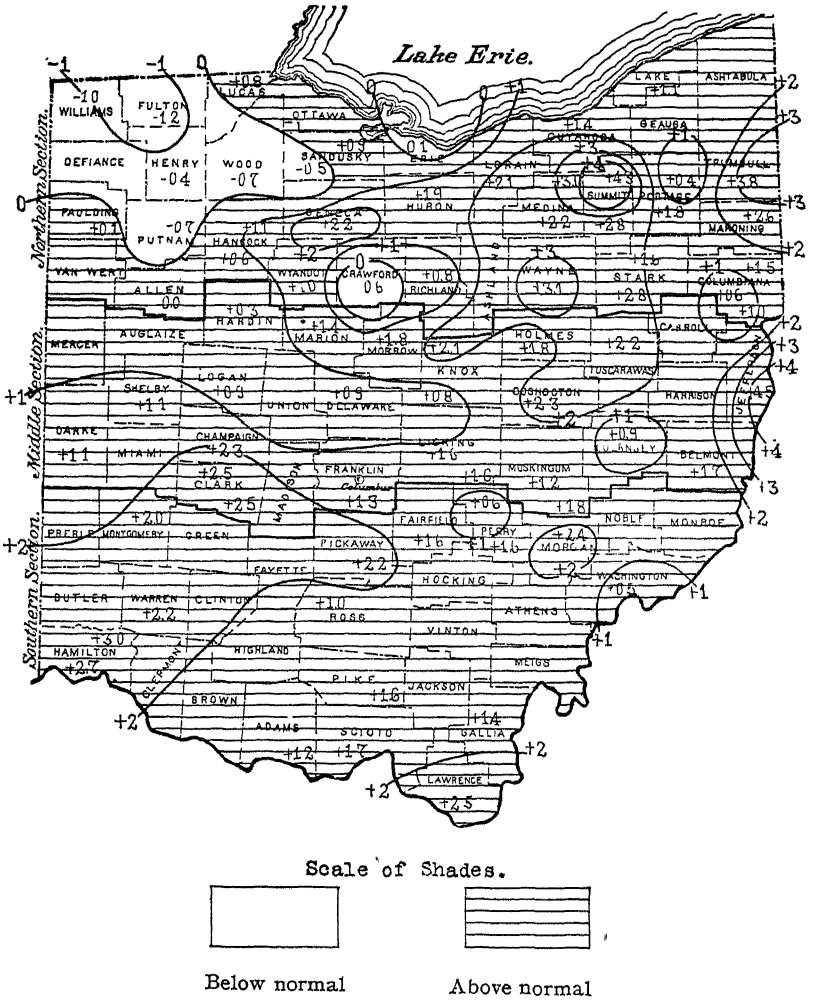


Precipitation- in Inches.

Below 2 | 2 to 4 | 4 to 6 | 6 to 8 | over 8

Figure 26. Total precipitation, April, 1912. The precipitation averaged 4.47 inches. The rains were well distributed throughout the month and in many central districts they occurred with such frequency that all outdoor work was greatly delayed. Thunderstorms occurred on several dates, the most damaging being on the 14th. This was accompanied by hail in many sections of the state and much damage resulted. The hailstones were unusually large.

Precipitation departures, April, 1912



Scale of Shades.

Below normal Above normal

Figure 27. Departure of the precipitation from the normal, April, 1912. The average rainfall for April was 1.46 inch above the normal, although in some northwestern districts it was slightly less than the usual amount for this month. Only once in the past 30 years has the average for the state for this month been greater than this year.

Snowfall, April, 1912

Figure 28. Total snowfall, April, 1912. Quite a heavy snowfall occurred in central and northeastern counties on April 2, amounting to over 5 inches in a number of places.

Figure 29. Normal temperature for May. The normal temperature for May is 61°. The coolest section of the state is in Lake county and the warmest near the Ohio river.

Mean temperature, May, 1912

Figure 30. Average temperatures for May, 1912. The warmest day was the 23rd, when several people were prostrated by the heat. The coldest day was the 13th when the temperature was below freezing at a number of points. The weather was cloudy, however, and comparatively little frost damage was reported.

Temperature departures, May, 1912

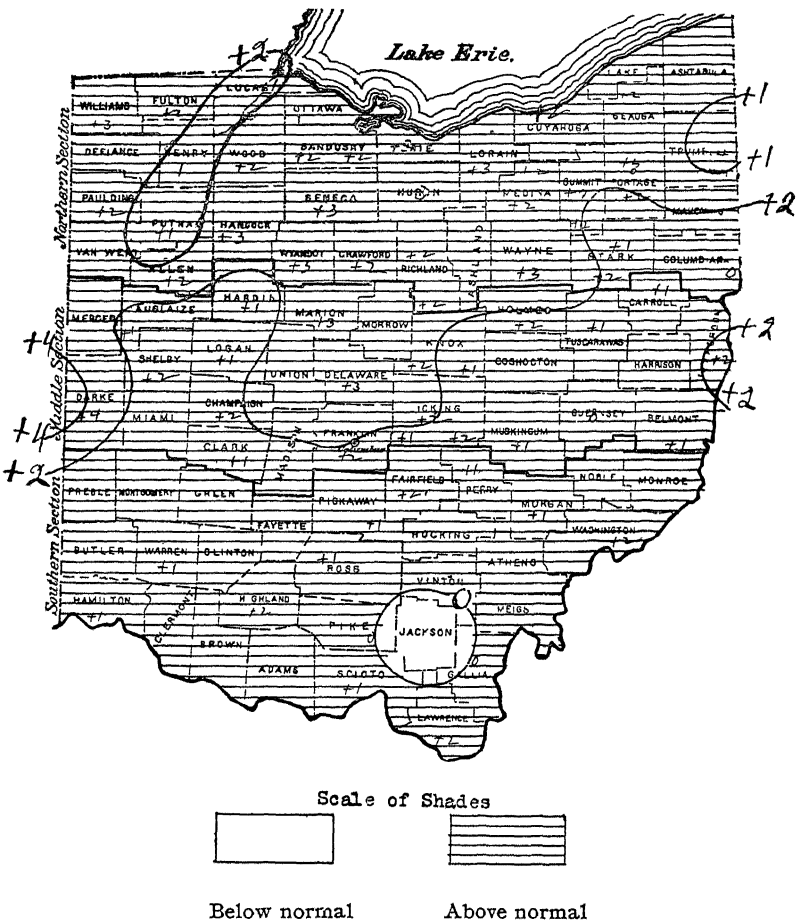


Figure 31. Departure of the mean temperature from the normal, May, 1912. The temperature averaged 1.7° a day above the normal during May. The daily temperatures were considerably above the normal during most of the first week and again on the 20th-24th and 27th-28th. The 23rd was the warmest day of the month at most stations and the 13th was the coldest.

Normal precipitation for May

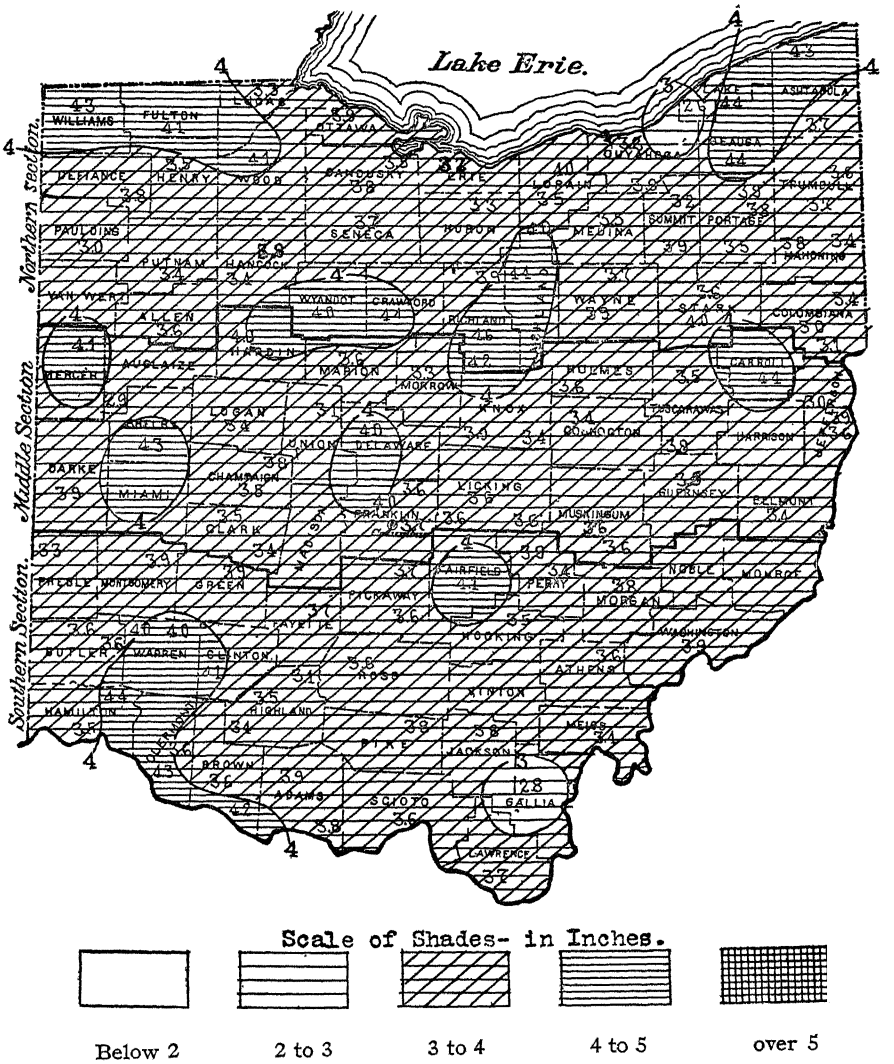


Figure 32. Average precipitation for May. The precipitation increases steadily through May into June, the average for May for the state being 3.77 inches. The distribution over the state is very uniform, as is shown by the above chart.

Precipitation, May, 1912

Figure 33. Total precipitation, May, 1912. The average precipitation was 3.12 inches and was rather irregularly distributed The fall was 7 inches in southern Adams county, but less than 2 inches in a number of northern and eastern districts. There was much rainy weather from the 11th to 17th which delayed farm work seriously, although this was followed by a week of very favorable conditions. The thunderstorms that occurred were not generally severe.

Precipitation departures, May, 1912

Figure 34 Departure of the precipitation from the normal, May, 1912. The average precipitation for the state was 0.51 inch less than the normal, although it was greater than the normal in most southern and some central districts.

Snowfall, May, 1912

Figure 35 Total snowfall, May, 1912. Snow fell in central and northern districts on the 13th but in most places it melted as fast as it fell.

Mean temperature (normal) June

Figure 36 Normal temperature for June The normal for June is 69°.

Mean temperature, June, 1912

Figure 37. Average temperature for June, 1912. The night temperatures were unusually low during the first half of June and the germination and growth of vegetation was retarded. Corn suffered the greatest damage in this respect. Freezing temperatures were general in the valleys in the eastern portion of the state on the 7th or 8th, and frost was general except in a few western counties. At Green Hill, Columbiana county, a temperature of 28° was recorded on the 8th. This is the lowest record in June since the establishment of the Meteorological Service in 1883.

Temperature departures, June, 1912

Figure 38. Departure of the mean temperature from the normal, June, 1912. The temperature averaged unusually low during the first half of the month, although it was more favorable during the last half. The daily temperature for the state averaged 2.6° below the normal, and was 4° or more below in some districts.

Normal precipitation for June

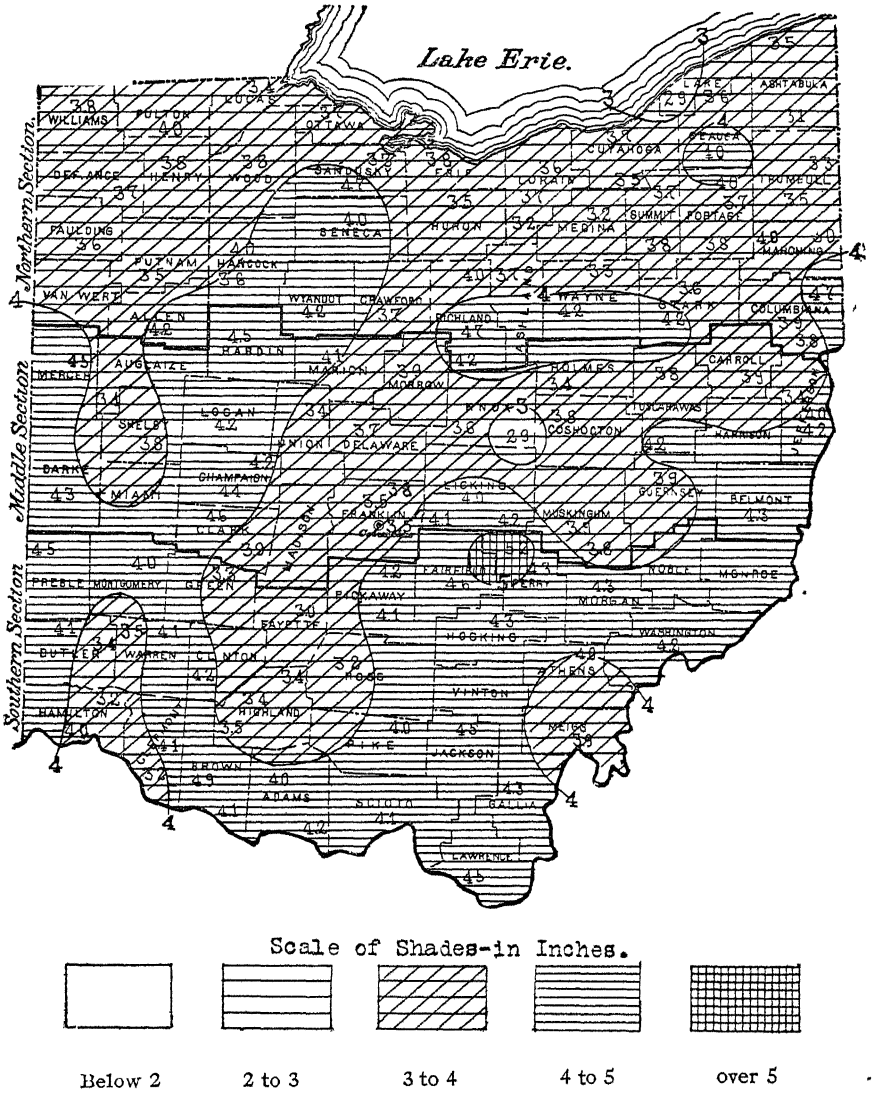


Figure 39. Average precipitation for June. This is normally the wettest month of the year in Ohio. The average rainfall for the state is 4.13 inches and it is well distributed over the state.

Precipitation, June, 1912

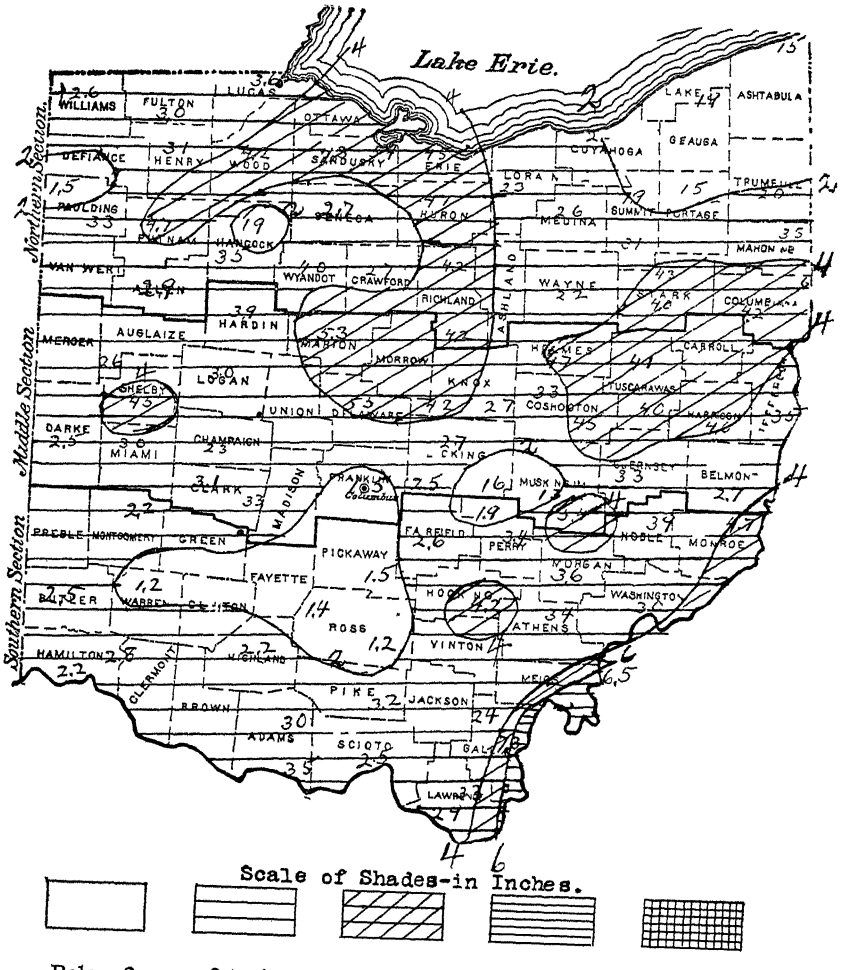
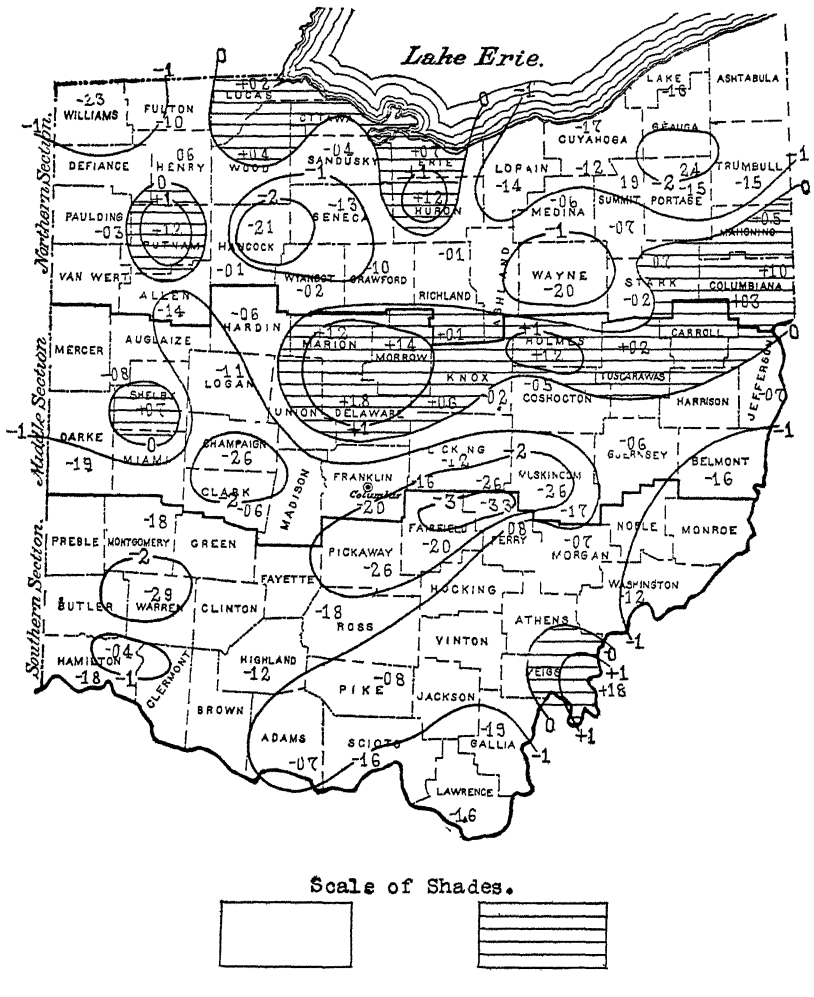


Figure 40. Total precipitation, June, 1912. The average rainfall for the state was 3.17 inches, but it was very unevenly distributed. The number of rainy days was considerably below the average. Most of the rainfall occurred in scattered thunderstorms. A number of unusually severe storms occurred on Sunday, June 16th, and much damage resulted from both wind and lightning. The wind injured buildings, orchards, timberlots, and telephone and telegraph lines from Cincinnati northeasterly across the central portion of the state.

Precipitation departures, June, 1912



Scale of Shades.

Below normal Above normal

Figure 41. Departure of the precipitation from the normal, June, 1912. The precipitation was unevenly distributed and in some districts was considerably above the normal, but for the state as a whole it averaged 0.77 inch less than the usual amount. Very little rain fell during the first 11 days of the month.

Mean temperature (normal) July

Figure 42. Normal temperature for July. The normal for July is 74°. This is the warmest month of the year, although some seasons the mean temperature for June or August or both may be higher than in July. The lowest mean temperature is in eastern Portage county and the highest at Cincinnati.

Mean temperature, July, 1912

Figure 43. Average temperature for July, 1912. The month was characterized by unusual evenness in temperature with no unusually low or high temperatures The highest mean was 77° in the Ohio valley and the lowest 70° in northeastern counties.

Temperature departures, July, 1912

Figure 44. Departure of the mean temperature from the normal, July, 1912. For the state as a whole the temperature averaged almost exactly normal. It was generally slightly warmer than the normal during the first half and slightly cooler during the last half of the month, although the ranges were not great.

Normal precipitation for July.

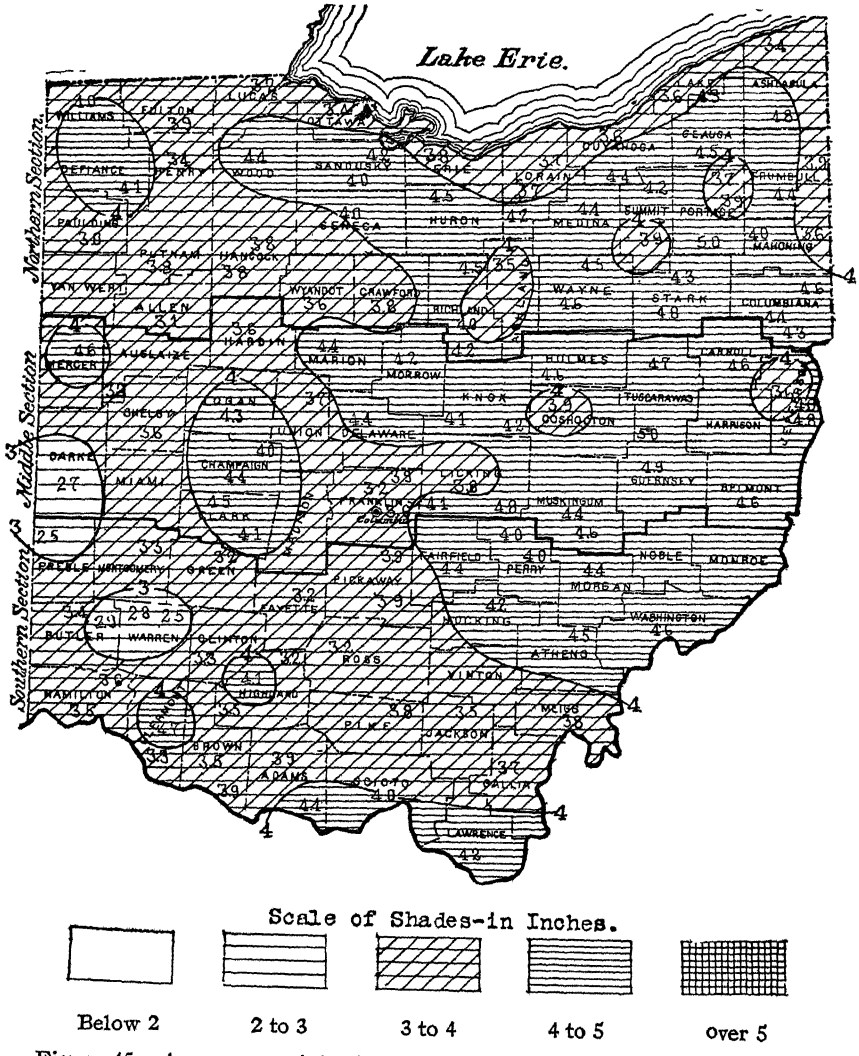


Figure 45. Average precipitation for July. July averages nearly as wet as June, the rainfall for the state being 4.04 inches. The eastern half of the state averages slightly more rainfall than the western half.

Precipitation, July, 1912

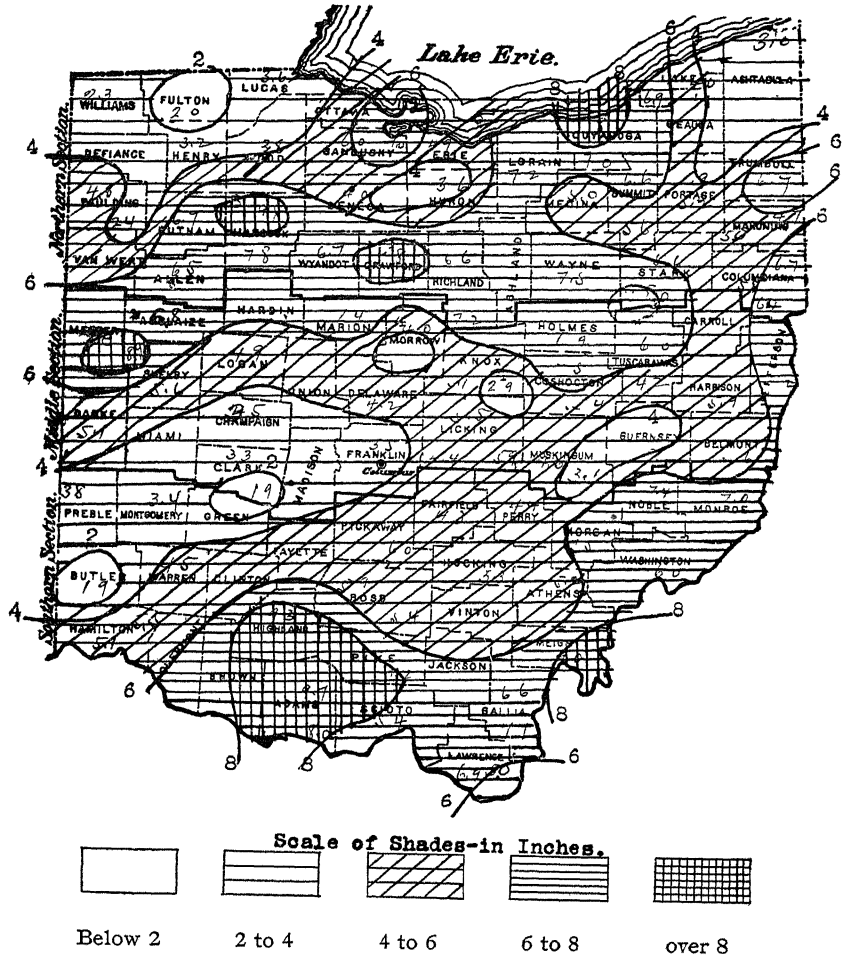


Figure 46. Total precipitation, July, 1912. The average rainfall for July for the state was 5.70 inches. It was over 9 inches in central Adams county but less than 2 inches in Butler and southern Adams counties. The rains were frequent and heavy and at a number of points more rain fell than during any other July on record. Thunderstorms were frequent and damaging, harvesting was hindered by the heavy rains and, in eastern and southern Ohio, much damage was done to roads, bridges and crops.

Precipitation departures, July, 1912

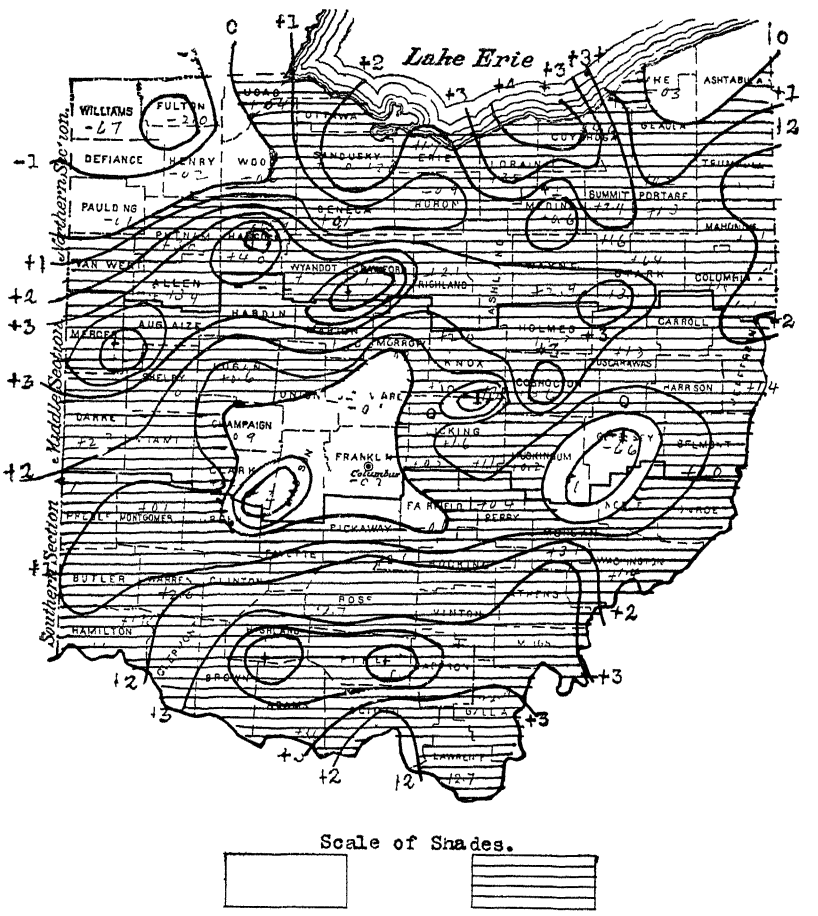


Figure 47. Departure of the precipitation from the normal, July, 1912. The average rainfall for Ohio was 1 65 inch above the normal in July, although in some central and northern counties it was considerably less than the usual amount. The rainfall is usually poorly distributed during summer thunderstorms, but it was unusually so during this month.

Mean temperature (normal) August

Figure 48. Normal temperature for August. The normal temperature is 72° for August. The coolest place is in eastern Portage county and the warmest at Cincinnati, as in July.

Mean temperature, August, 1912

Figure 49. Average temperature for August, 1912. The mean temperature for the state was 69.2°. The highest mean was 73.8° at Cincinnati and Ironton and the lowest 64.8° at Green Hill, Columbiana county. The highest temperature reported was 95° at two southern stations on the 18th and the lowest 40° at three eastern stations on the 4th. This was one of the coldest Augusts on record in this state.

Temperature departures, August, 1912

Figure 50. Temperature departures from the normal for August, 1912. The mean temperature for the month was 2.3° below the normal. The first week was unseasonably cool and the second was generally slightly below the normal. The 18th and 31st were the two warmest days.

Normal precipitation for August

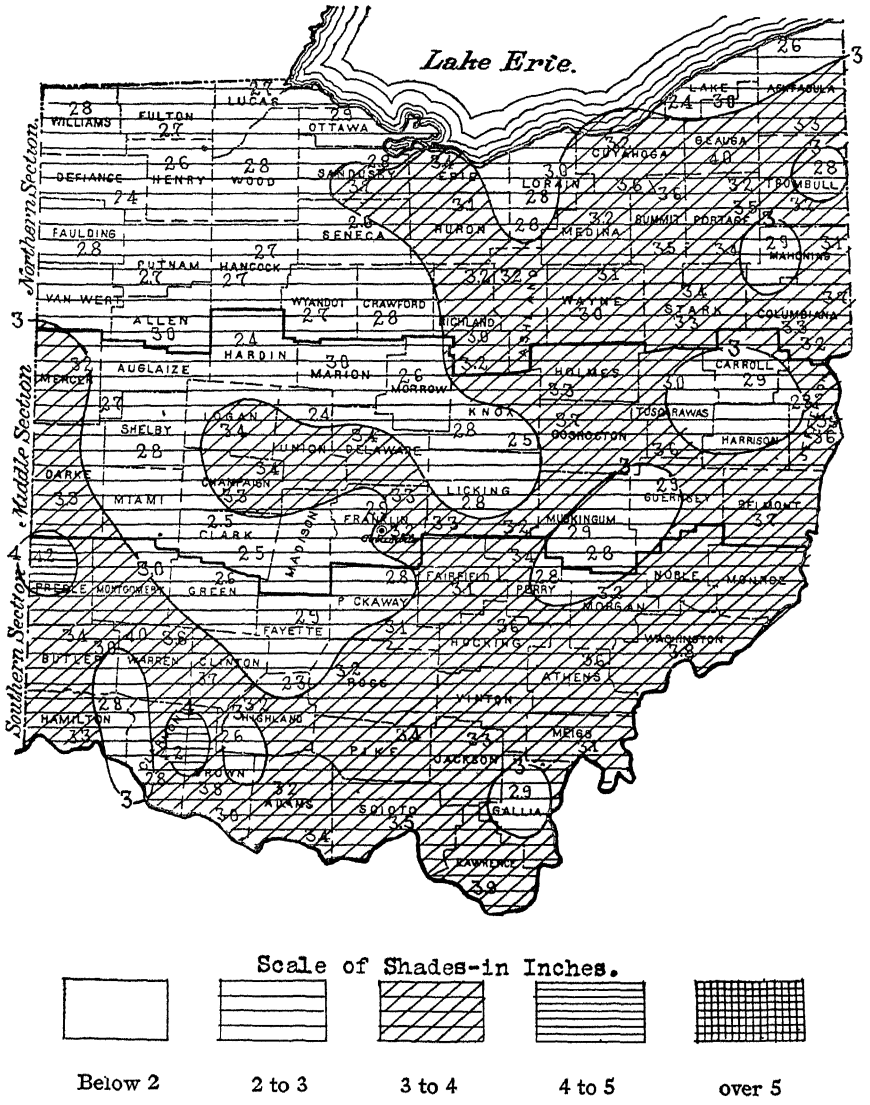


Figure 51. Average precipitation for August. Northwestern Ohio averages less rainfall in August than the other districts of the state. The mean is 3.27 inches

Precipitation, August, 1912

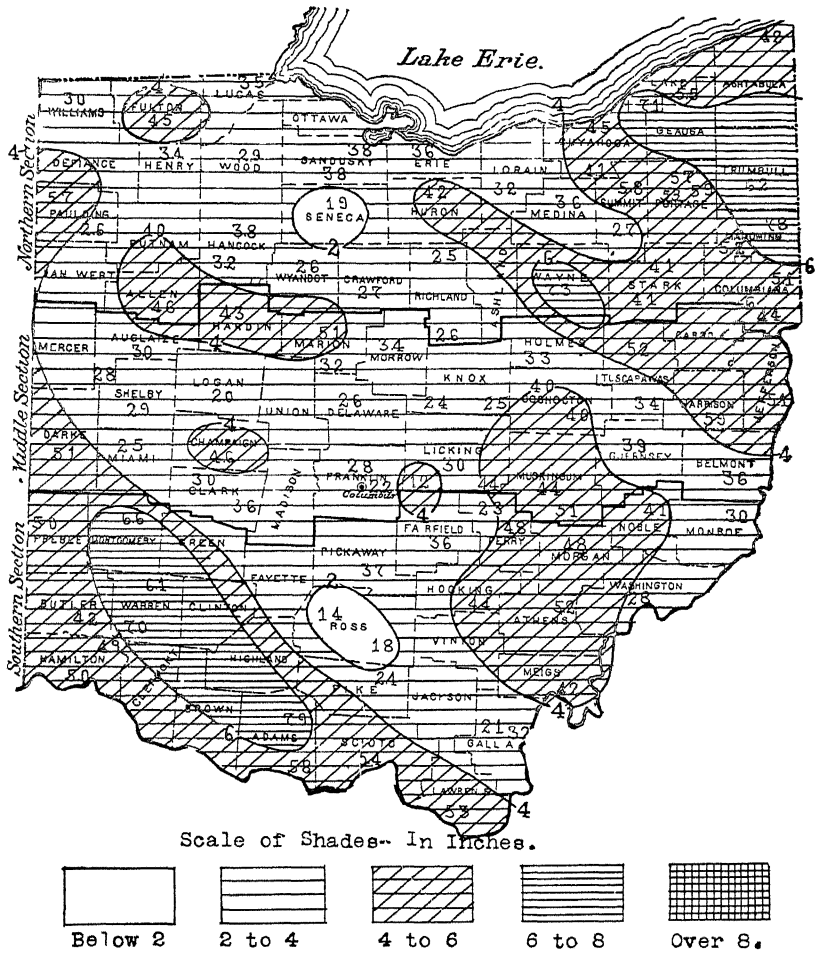


Figure 52. Precipitation during August, 1912. The average rainfall for the state was 4.08 inches. The rains were very frequent after the first week and harvesting and fall plowing were badly delayed. Considerable damage was done to crops, roads, and bridges by the heavy rains.

Precipitation departures, August, 1912

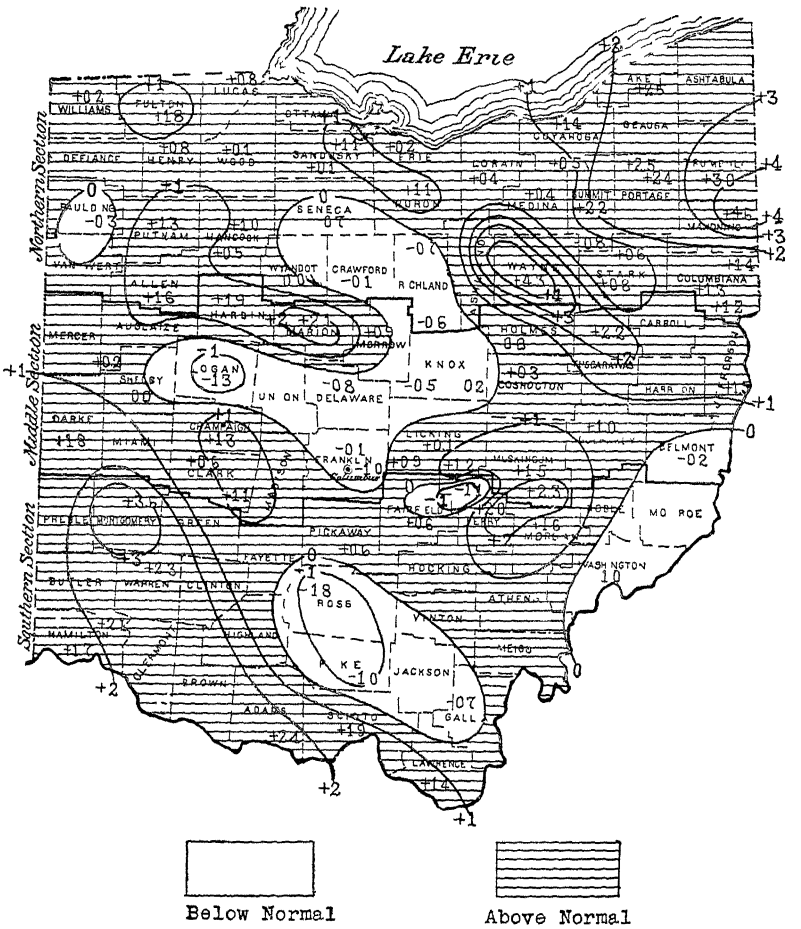


Figure 53. Precipitation departure from the normal for August, 1912. The average amount of rainfall for the state was nearly an inch above the normal. Locally the monthly totals were above normal at four-fifths of the stations. The greatest monthly amount reported was 7 90 inches at Peebles, Adams county, and the least 1.44 inch at Frankfort, Ross county.

Mean temperature (normal) September

Figure 54 Normal temperature for September. This month averages somewhat cooler than either June, July or August. The normal temperature is 66°.

Mean temperature, September, 1912

Figure 55. Average temperature for September, 1912. The highest mean temperature was in Meigs county and the lowest in Portage and Columbiana counties. The average for the state was 67.4°. The highest recorded was 99° in Morrow county on the 5th and the lowest 29° in Hardin county on the 27th. The first 11 days of the month were unusually warm and several heat prostrations were reported. Frosts were general during the last four days of the month.

Temperature departures, September, 1912

Figure 56. Departure of the mean monthly temperatures from the normal for September, 1912. The month was warmer than usual in all sections of the state, the average being 1 7° above the normal. The daily temperatures at Columbus from the 1st to 11th averaged 11° above the normal. From the 12th to the 25th the temperatures were near the normal, but decidedly cooler weather prevailed until from the 26th to 30th. Most observers report that damage to growing crops by the frosts near the close of the month was not extensive.

Normal precipitation for September

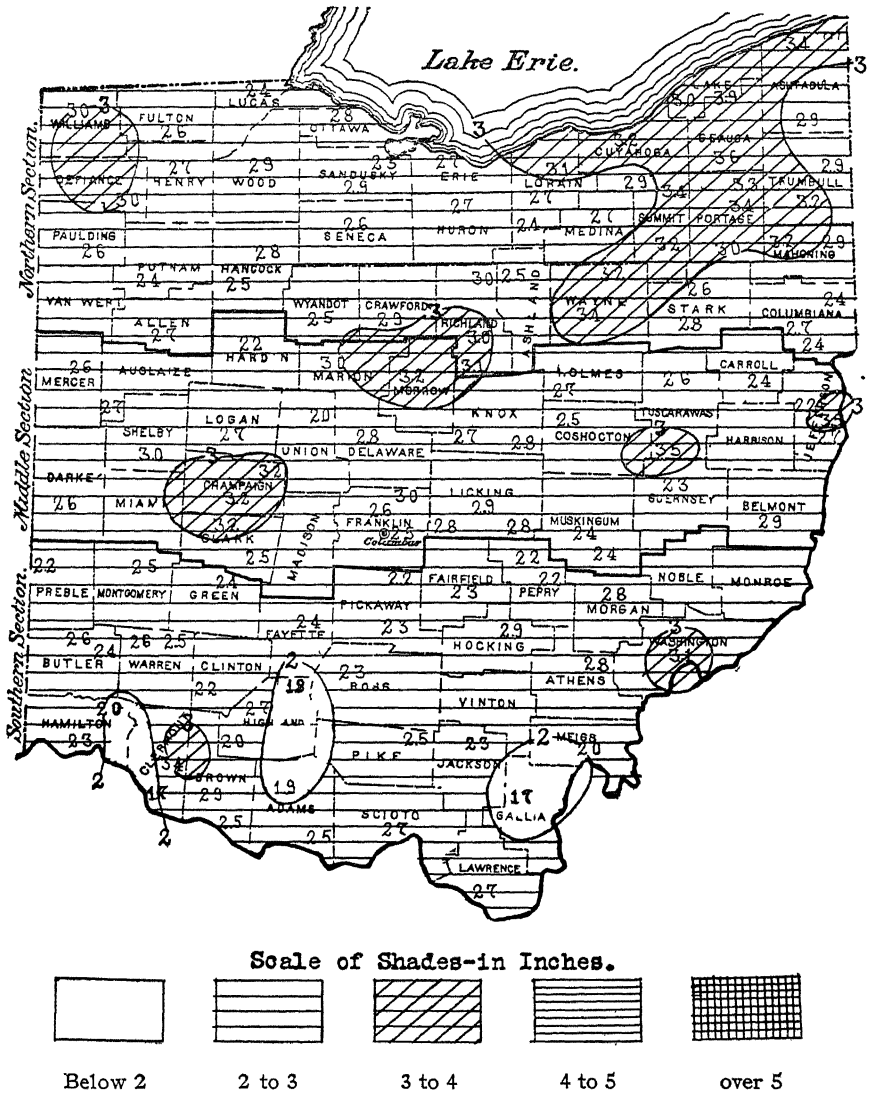


Figure 57. Average precipitation for September. The average rainfall for the state is 2.99 inches, the fall being greatest in northeastern counties.

Precipitation, September, 1912

Figure 58. Precipitation during September, 1912. The heaviest rainfall was in the northeast and the least in the southeast. The average rainfall for the state was 3.11 inches. Excessive rains on the 1st and 2nd caused a great deal of damage in Carroll, Columbiana, Jefferson and southern Stark counties Much damage was done in Wayne county on the 6th by heavy rain and lightning.

Precipitation departures, September, 1912

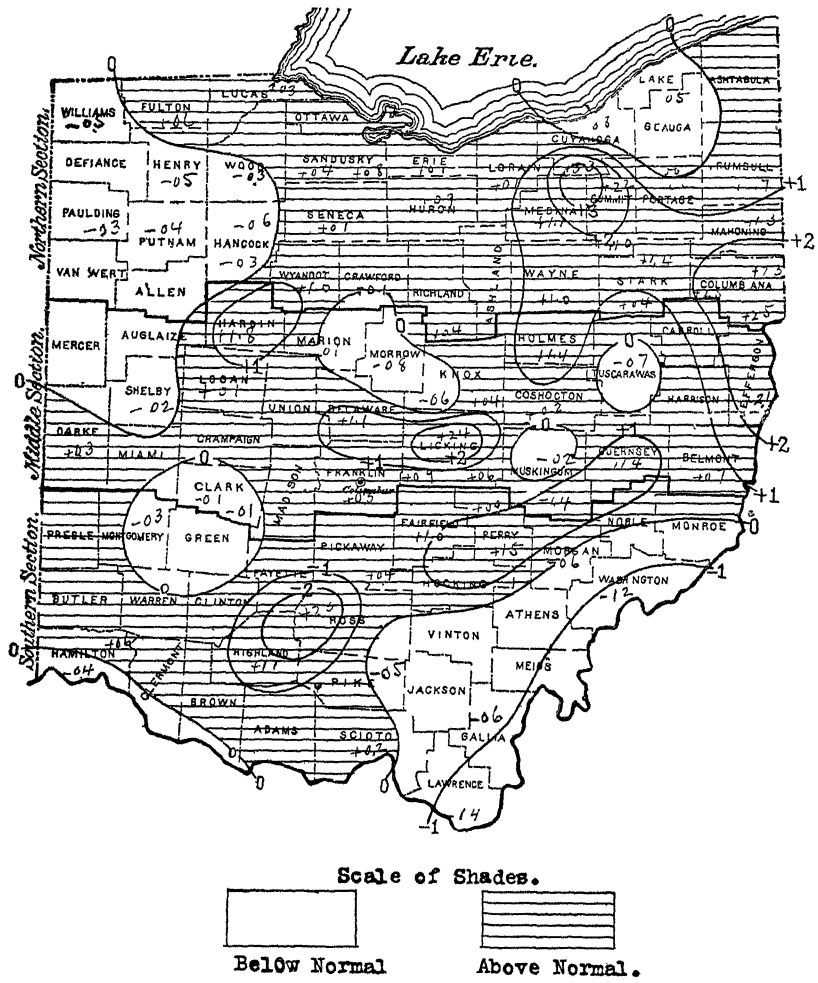


Figure 59. Departure of the rainfall for September, 1912, from the normal The central and east-central portions of the state received the greatest rainfall The amount for the state as a whole averaged 0.5 inch above the normal. The first half of the month was especially favorable for farm work and the maturing of corn and other crops.

Mean temperature (normal) October

Figure 60. Normal temperature for October. The fall of temperature in the autumn is rather more rapid than the rise in the spring. The normal temperature for October is 53°, or 13° lower than in September. The influence of the warm water of the Lake begins to be marked and the coolest places are at some distance from the Lake shore.

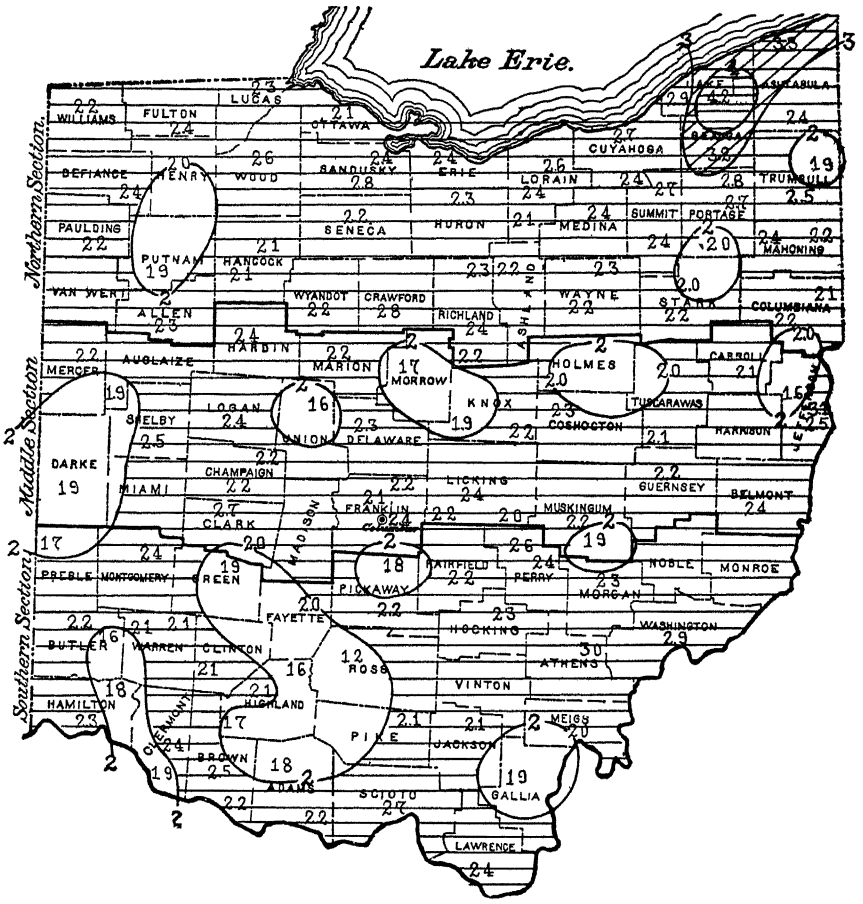
Mean temperature, October, 1912

Figure 61. Average temperature for October, 1912. The average temperature for the state was 54.8°. The highest local monthly mean was 60.8° in Green county and the lowest 51.0° in Columbiana county. The highest temperature reported was 93° in Belmont county on the 11th and the lowest was 23° in Adams county on the 26th and 27th, and in Perry county on the 27th. Light to heavy frosts were quite general on the first three days and in a few eastern counties the temperature fell to the freezing point. Killing frost occurred in some eastern counties on the 14th and on the 16th killing frost and freezing temperatures were general.

Temperature departures, October, 1912

Figure 62. Temperature departures from the normal for October, 1912 The mean temperature for the state was 1.8° above the normal. The daily temperatures were generally above normal from the 4th to the 12th, 18th to 22nd, and 28th to 31st, inclusive, and below normal on most of the remaining dates. The warmest period of the month was from the 9th to the 11th. The many mild, pleasant days were especially favorable for late crops and outdoor work.

Normal precipitation for October



Scale of Shades-in Inches.

Below 2 | 2 to 3 | 3 to 4 | 4 to 5 | over 5

Figure 63. Average precipitation for October. October is the driest month of the year in Ohio, the average rainfall being 2.52 inches.

Precipitation, October, 1912

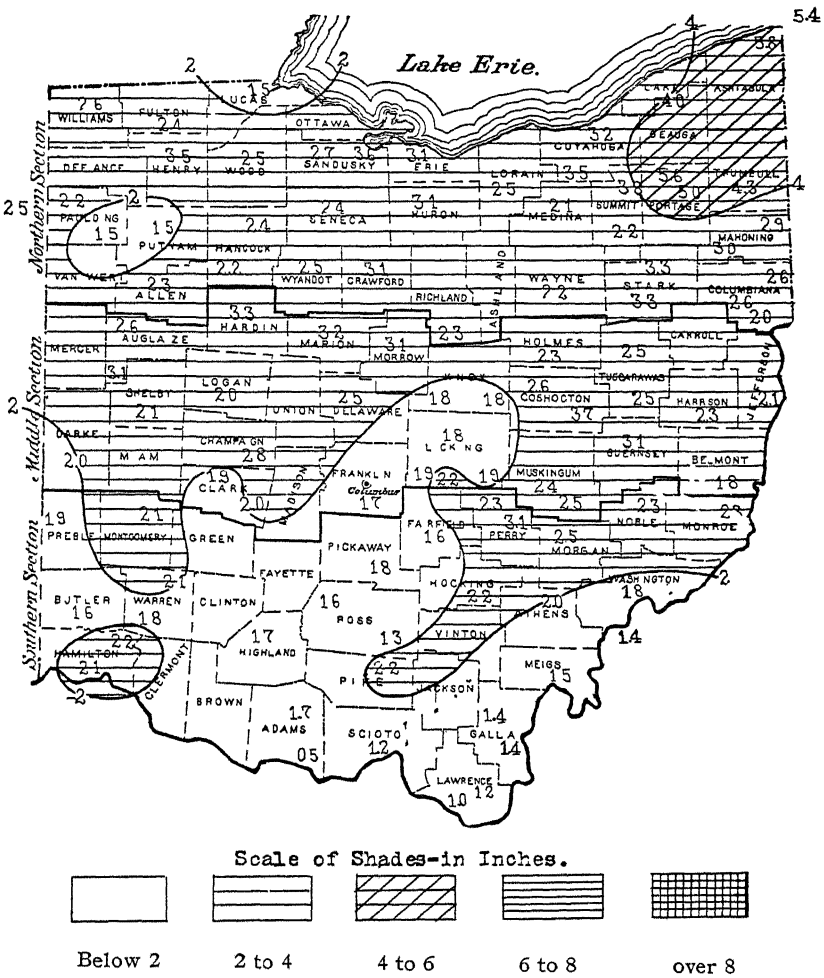


Figure 64. Precipitation during October, 1912. The average amount of precipitation for the state was 2.44 inches. In general it was heavier in the northeastern counties than elsewhere. The rainfall was light and scattered during the first 17 days, except in some of the northern counties. Then followed two 2-day periods of general rain on the 18th, 19th, 22nd and 23rd, and scattered showers occurred again on the last two days.

Precipitation departures, October, 1912

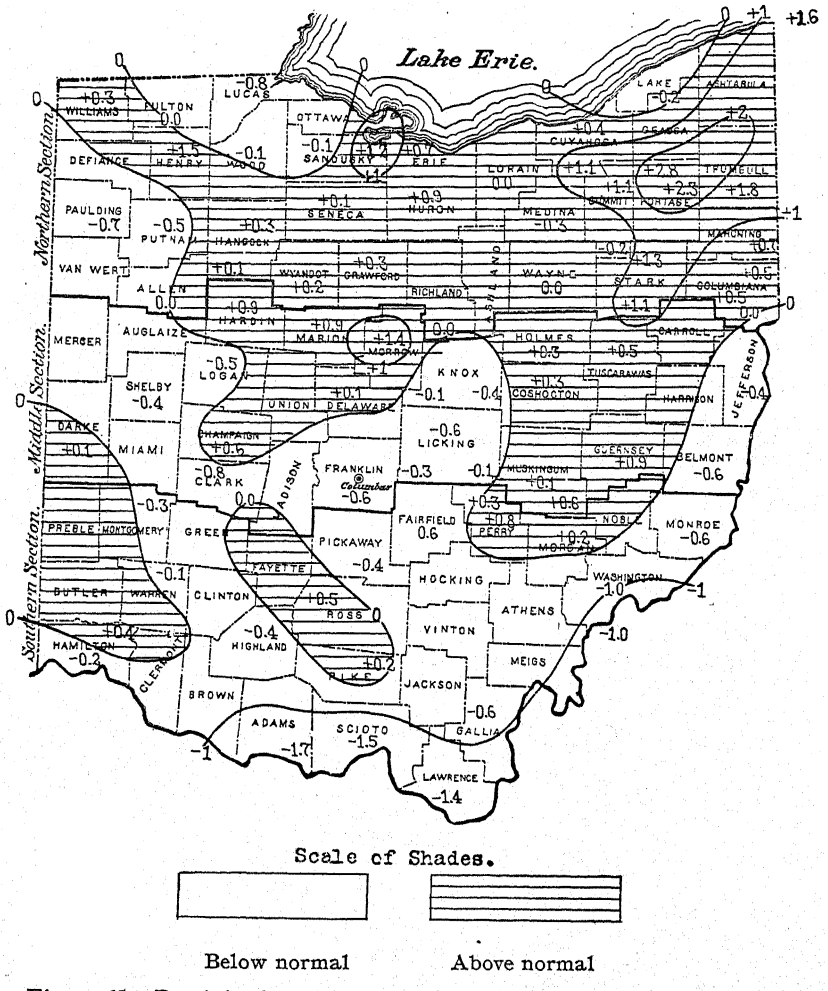


Figure 65. Precipitation departure from the normal for October, 1912. Although there were but few rainy days, the total rainfall for the month averaged 0.18 inch above the normal. There was but little wet weather to interfere with work and yet in most places there was sufficient moisture to germinate seed and keep the fall pastures green.

Mean temperature (normal) November

Figure 66. Normal temperature for November. The normal temperature for November is 41°, or 12° lower than for October. The lowest mean temperature is in Fulton county and the highest at Cincinnati and Portsmouth.

Mean temperature, November, 1912

Figure 67. Average temperature for November, 1912. The lowest mean temperatures were in the central portion of the state instead of the northern, because of the effect of the comparatively warm waters of the Lake. The temperatures were generally below 20° on the 28th.

Temperature departures, November, 1912

Figure 68. Departure of the average temperatures from the normal. The temperature averaged more than 2 degrees a day above the normal in most northern districts, and was slightly below the normal in a few central counties.

Normal precipitation for November

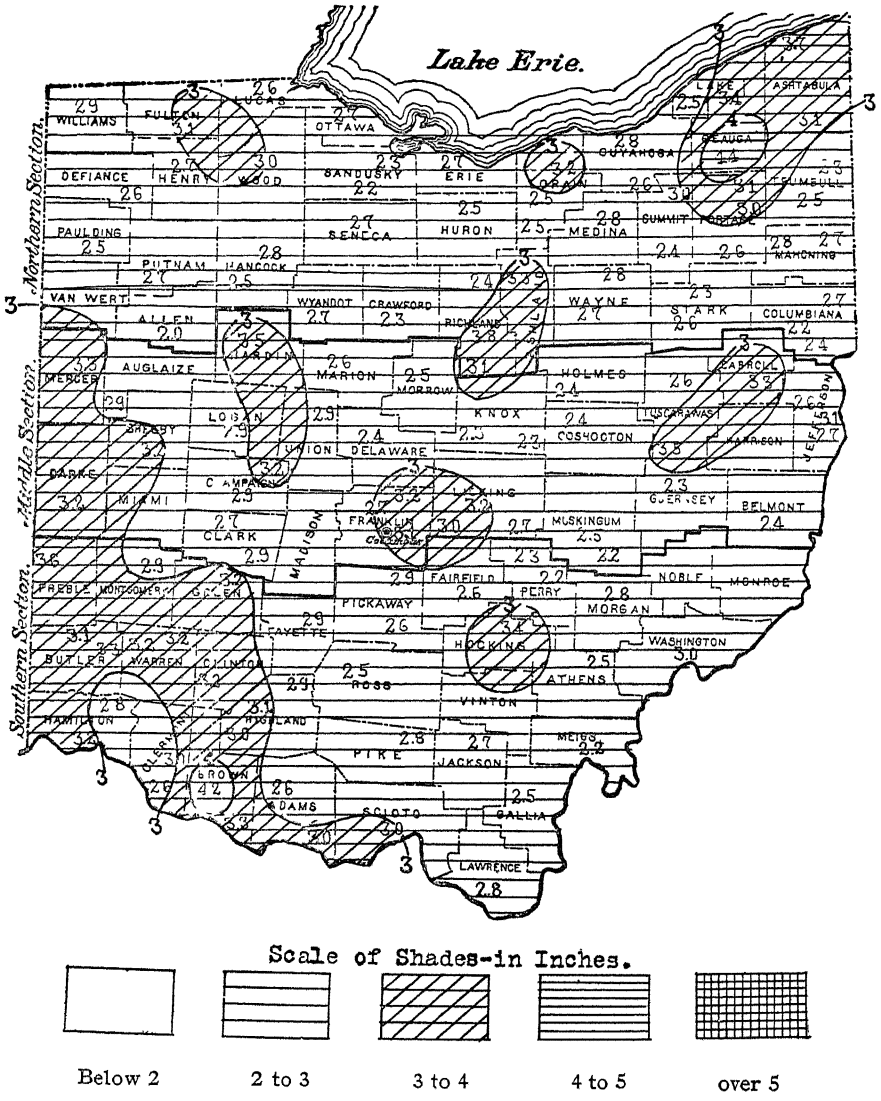


Figure 69. Average precipitation for November. The average for the state or this month is 2.99 inches.

Precipitation, November, 1912

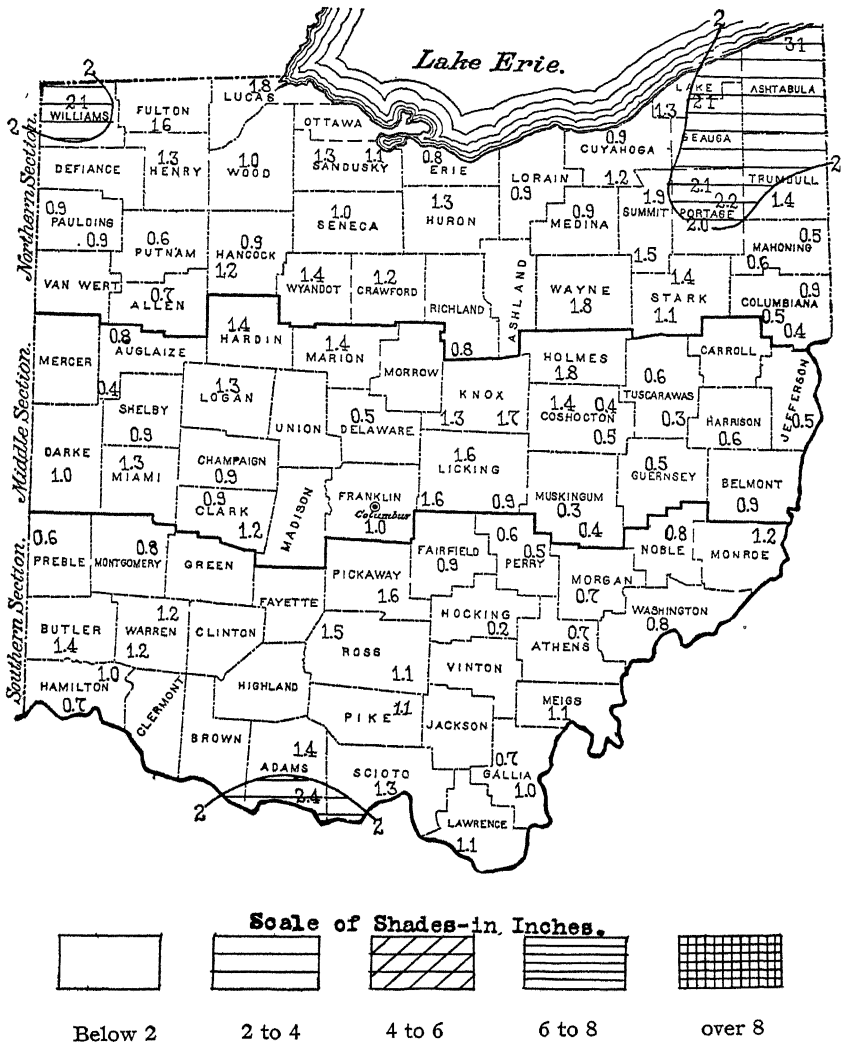


Figure 70. Total precipitation, November, 1912. The precipitation was heaviest in northeastern counties, but was very light in all sections. Most of the precipitation came before the 15th, so that the last half of the month was especially dry.

Precipitation departures, November, 1912

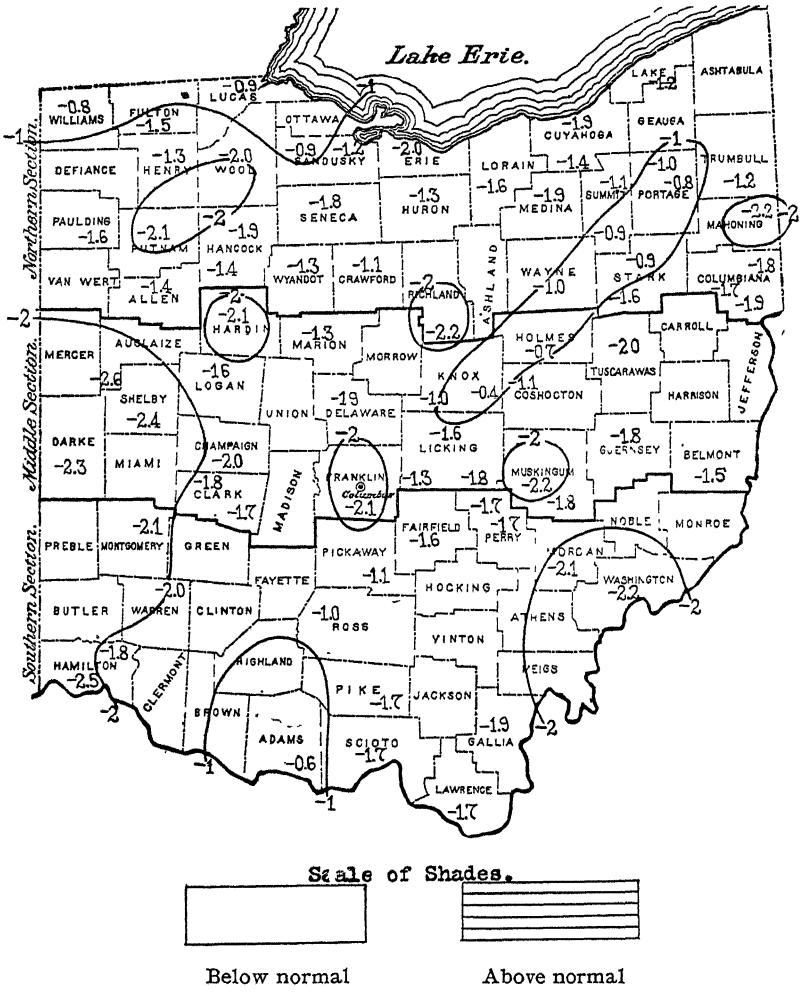


Figure 71. Departure of the precipitation for November from the normal The precipitation was everywhere below the normal. There were but few rainy days and no severely stormy ones, thus making the month unusually favorable for all outside work. The percentage of sunshine was much above the normal.

Snowfall, November, 1912

Figure 72. Total snowfall, November, 1912. The snowfall was generally considerably below the normal for November.

Mean temperature (Normal) December

Figure 73. Normal temperature for December. The normal temperature for this month is 31 degrees, and is below freezing except in the river valleys in the southern portion of the state. An inspection of Figures 1 and 7 show that the average temperature is not below freezing for even the coldest months in the extreme southern points.

Mean temperature, December, 1912

Figure 74. Mean temperature, December, 1912. The warmest period of the month was from the 1st to 6th, inclusive, when the day temperatures ranged from 50 to 70 degrees. A cold wave occurred on the 12th and 13th. The lowest temperature reported was 5° below zero in Logan county. The average temperature for the state was 33.8°

Temperature departures, December, 1912

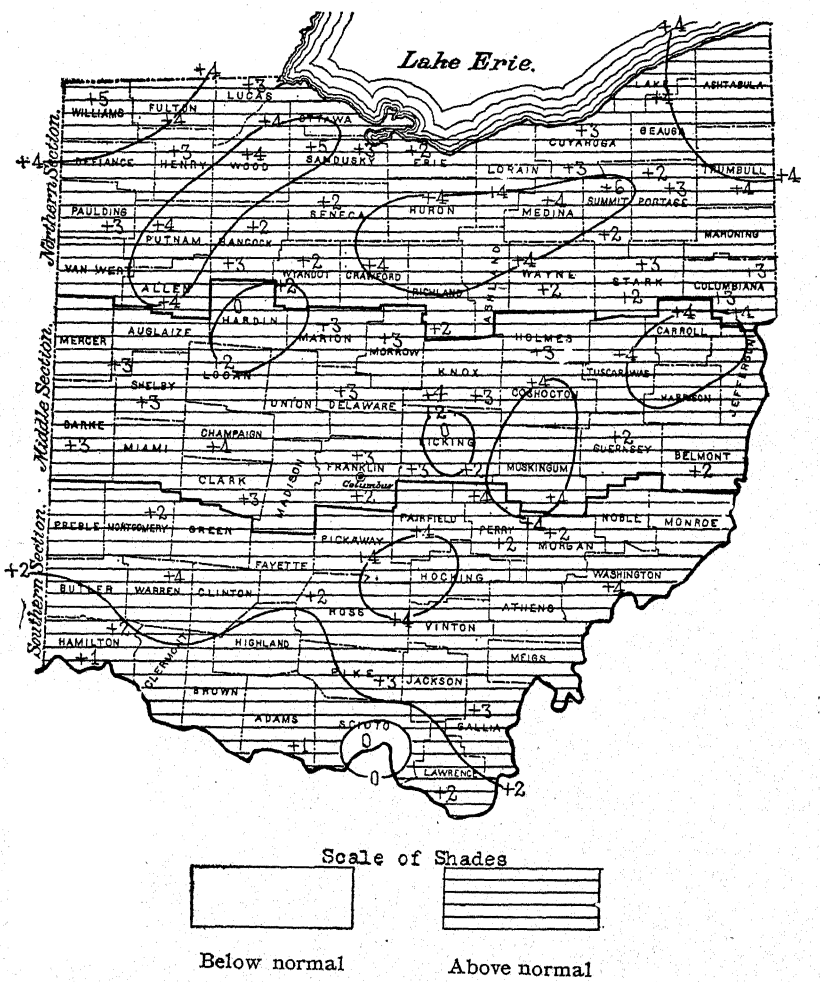


Figure 75. Departure of the temperature from the normal, December, 1912. The temperature was above the normal in practically all districts and averaged 2.9 degrees above for the state as a whole. The month ranks among the warmest Decembers on record.

Normal precipitation for December

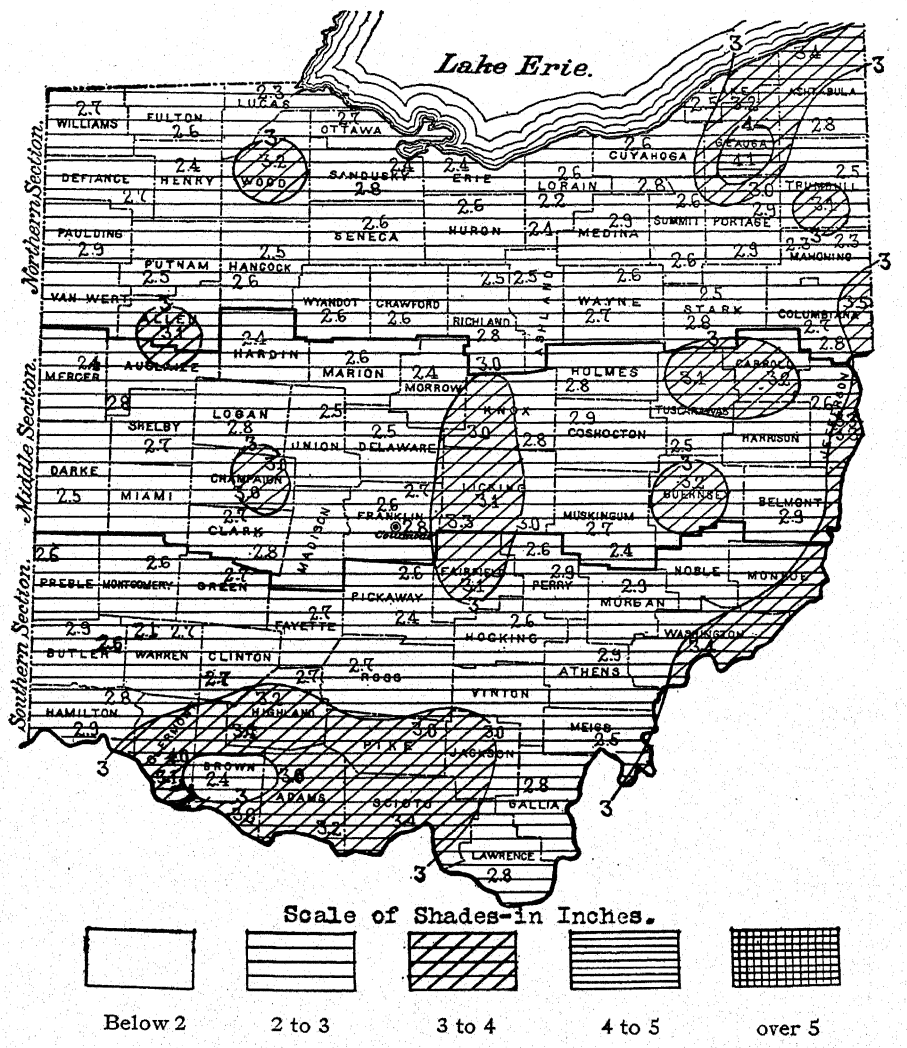


Figure 76. Average precipitation for December. The average precipitation for Ohio in December is 2.92 inches.

Precipitation, December, 1912

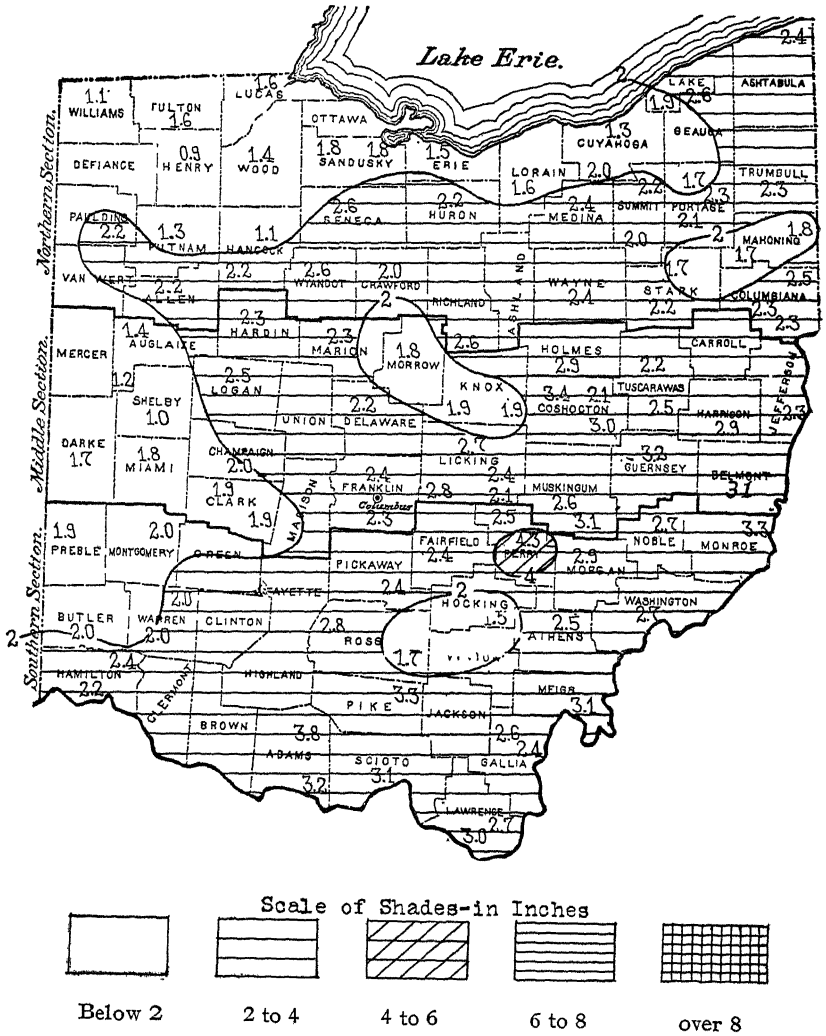


Figure 77. Average precipitation, December, 1912. The precipitation for the month averaged 2.26 inches. The greatest fall was in Milligan, Perry county, and the least in northern and western districts. The number of rainy days was less than usual and the sunshine was greater than usual.

Precipitation departures, December, 1912

Figure 78. Departure of the average precipitation from the normal, December, 1912. The precipitation was less than usual in nearly all sections of the state. The daily falls were generally light and the precipitation was well distributed throughout the month. The average departure for the state was —0.54 inch.

Snowfall, December, 1912

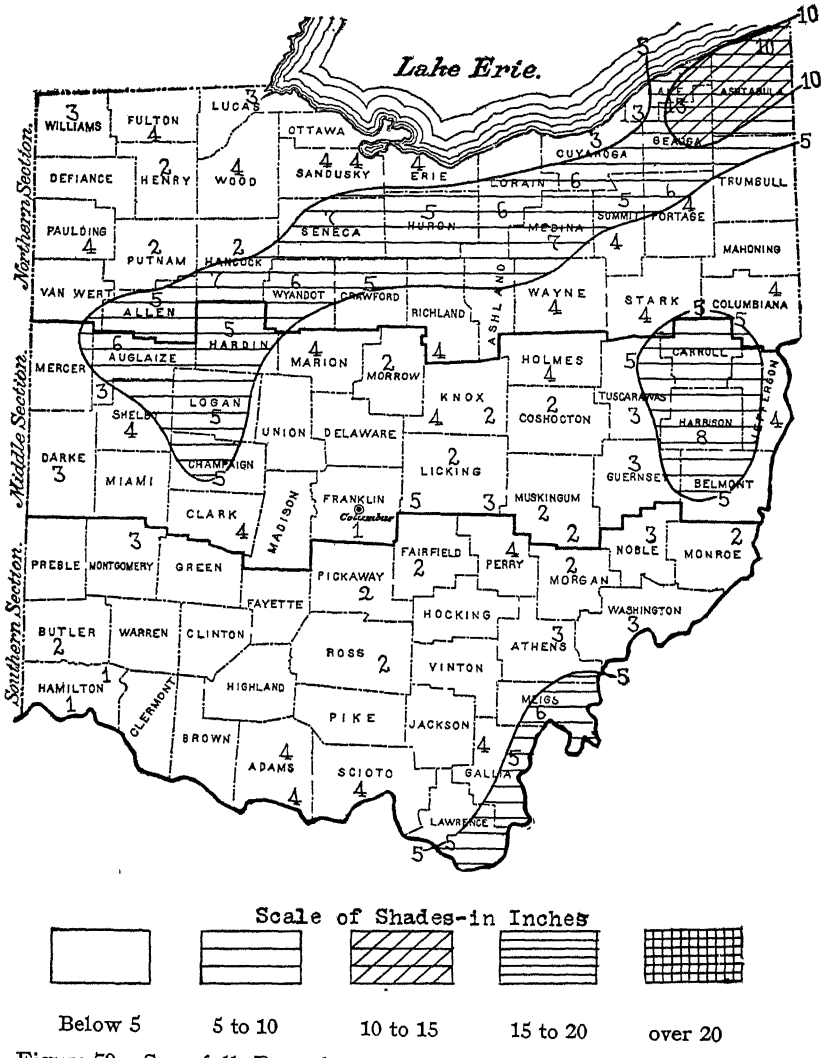


Figure 79. Snowfall, December, 1912. The snowfall was less than normal except in the extreme southern counties. The most of the snow fell on the 18th, 19th, 24th and 27th. In northern counties there was snow on the ground most of the time from the 19th to 28th, inclusive. The average amount of snow for the state was 3.9 inches.

Mean annual temperature

Figure 80. The average annual temperature lines are drawn on this char for each degree. The coolest sections of the state are in the northeastern and northwestern districts, while the warmest are in the extreme southern and southwestern counties. These isothermal lines are very regular in the southern portion of the state, bending to the north when they cross the valleys and to the south over the uplands. There is a large area in the west-central and northwestern counties, however, where the average temperature varies less than 1 degree for a distance of over 100 miles, from Champaign to Ottawa counties. The lowest annual mean temperature is 47.2° in Portage county, and the highest, 55.5° in Scioto county.

Mean temperature, year 1912

Figure 81. The year as a whole was somewhat cooler than usual. The winter was exceptionally cold and prolonged, the spring was late, the summer was cool, but the fall was mild and pleasant.

Temperature departures, year 1912

Figure 82. The mean temperature was below the normal for the year throughout the state except at one or two stations in extreme southeastern portion.

Average annual precipitation

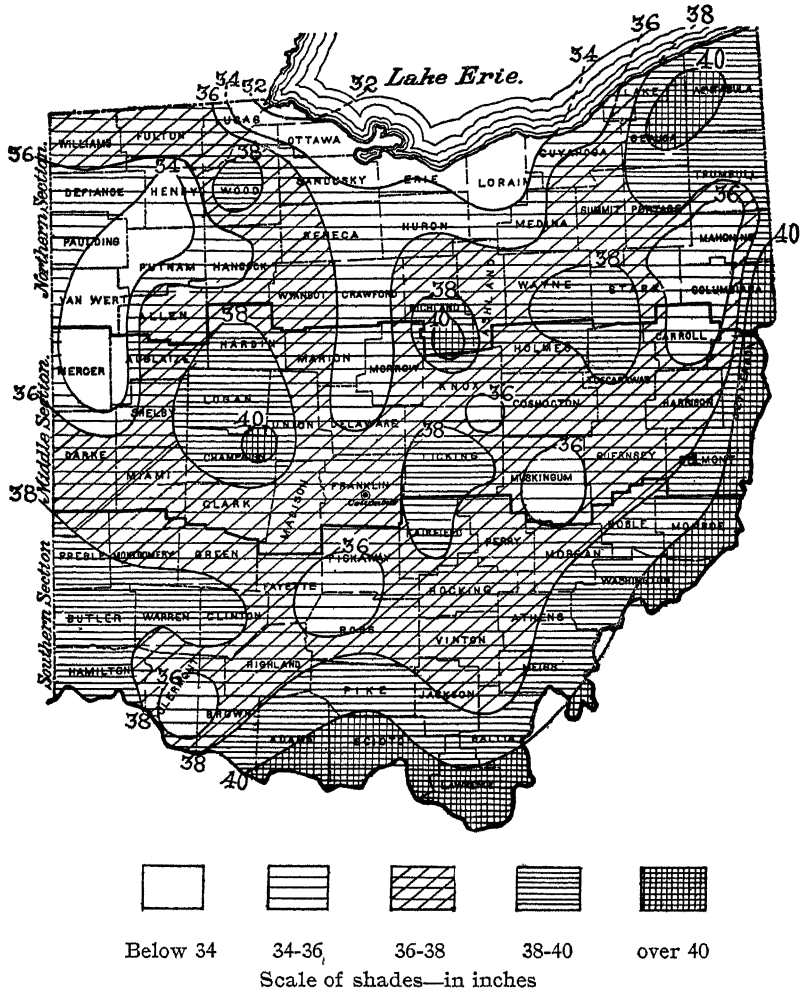


Figure 83. The average annual precipitation for the different sections of Ohio is shown graphically on this chart by means of shaded areas. Lines are drawn for each differences of 2 inches from 34 inches to 40 inches and areas having the same precipitation are given the same shading. The greatest precipitation is along the Ohio river, and the least near the western end of Lake Erie. There is quite a large district in the western portion of the state with a rainfall of less than 34 inches.

Precipitation, year 1912

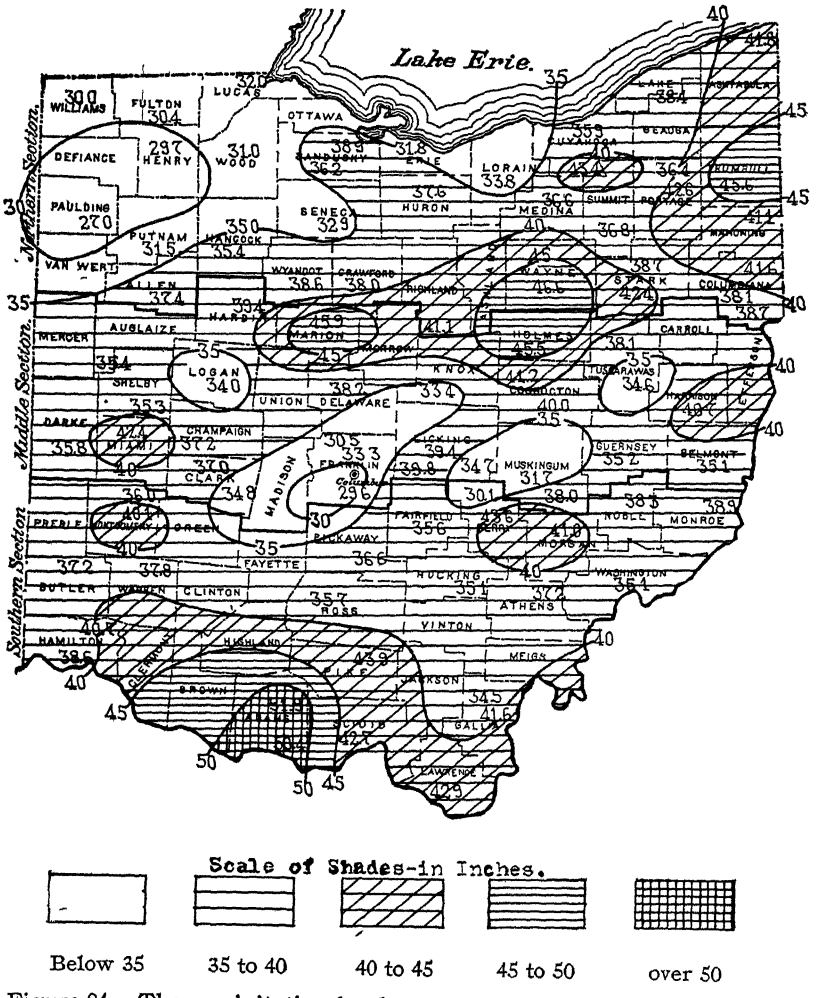


Figure 84. The precipitation for the year was very irregular. In general it was heaviest in the northeastern and extreme southern counties and lightest in the central and northwestern counties. The wettest months were March, April, July and August, while November was the driest with less than half the usual amount of precipitation.

Precipitation departures, year 1912

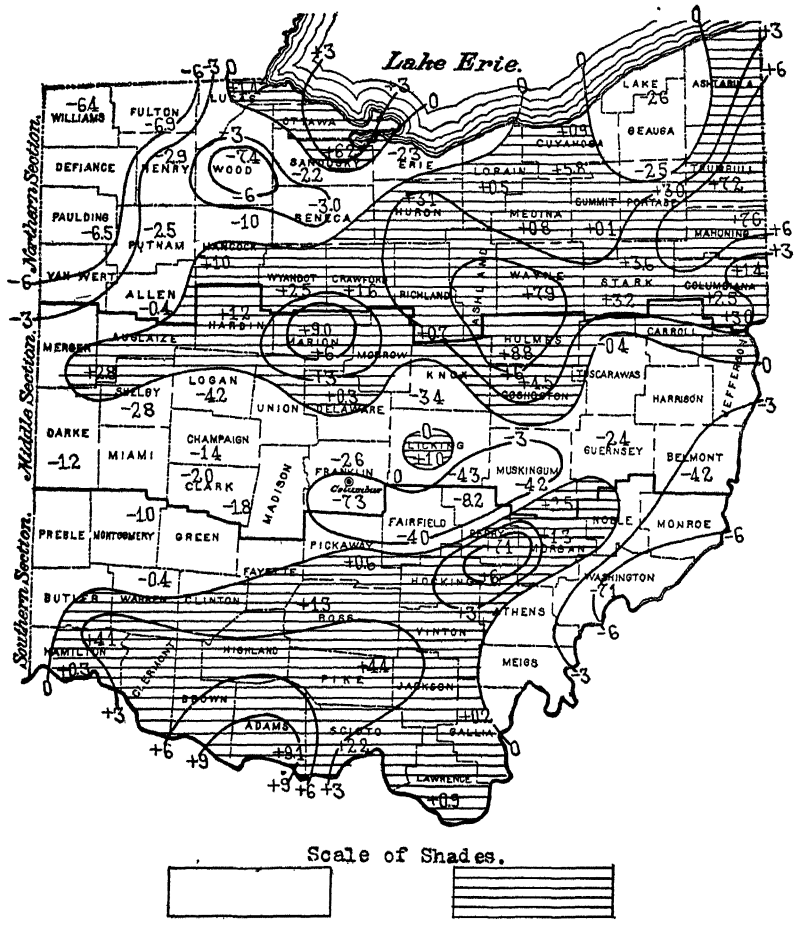


Figure 85. The above chart shows that the precipitation for the year, 1912, was irregularly distributed. It was above the normal in south-central and central-northeast portions.

Snowfall, year 1912

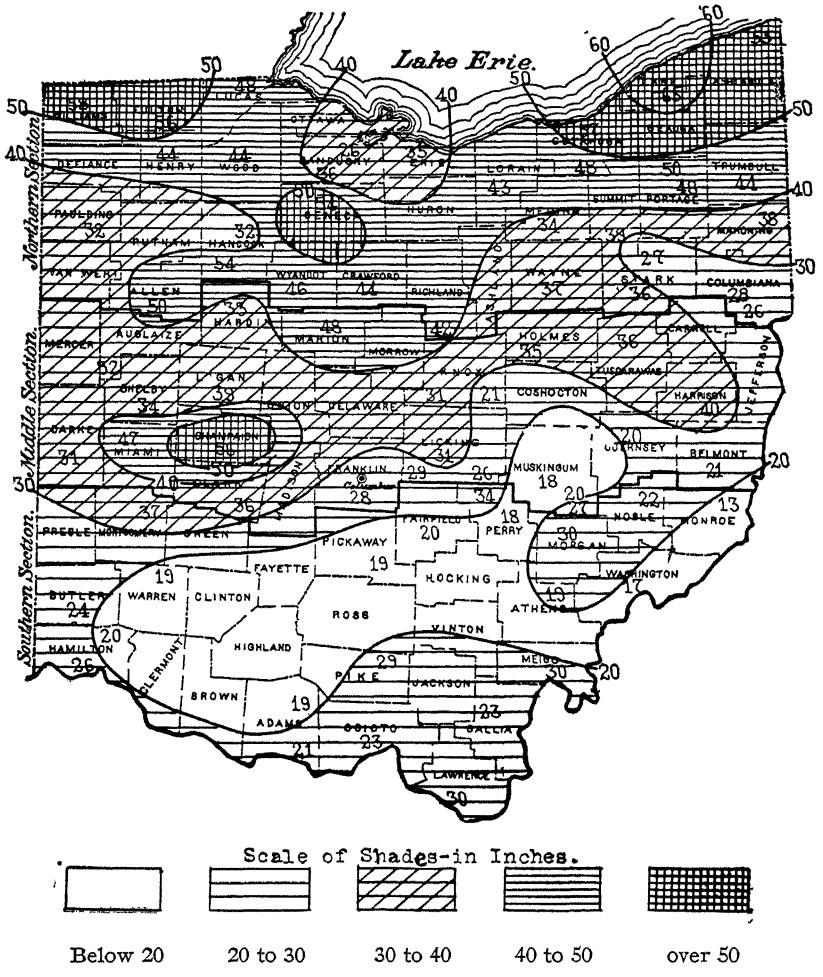


Figure 86. The snowfall for the year was considerably greater than usual in western counties, but it was slightly below normal in most of the eastern half of the state. The most of the snow fell in January, February and March.

METEOROLOGICAL SUMMARY FOR 1912

By C. A. PATTON

EXPLANATION OF TABLES

The following tables contain statistics of temperature, rainfall. etc., for the year, and are compiled from data obtained from daily observations. T stands for "trace"—less than .01 inch of rainfall. Temperature is given in degrees Fahrenheit.

Table I shows the daily rainfall at the Experiment Station at Wooster during the year in inches and hundredths.

Table II shows the daily mean temperature for each day of 1912 and the monthly mean temperature with the 25 years' average.

Table III gives the monthly mean temperature at the station with the 25 years' average for the same.

Table IV gives the monthly mean rainfall at the station with the 25 years' average for the same.

Table V gives the monthly mean temperature for the state for 1912 with 25 years' average.

Table VI gives the monthly mean rainfall for 1912 with the 25 years' average for the state.

Table VII gives the monthly mean temperature and rainfall for the station and state for 1912 with the 25 years' average.

Table VIII contains the mean temperature, the highest and lowest temperatures, with the range of temperature for each month; the number of clear, fair and cloudy days; the rainfall, snowfall and prevailing direction of wind, for both the station and state for 1912.

Table IX contains the principal points of interest on temperature, rainfall, and state of weather at the station during the year, and a grand summary for 25 years.

Table X contains the principal points of interest on temperature, rainfall, and state of weather for the state during the year and a grand summary for 30 years.

Table XI gives the highest and lowest temperature for each month during the past 25 years, for both the station and state.

Some errors in previous publications of temperature and precipitation, for the state, in tables five, six and ten, are corrected in this report.

NOTES ON THE WEATHER AT THE STATION FOR 1912
SUMMARY BY MONTHS

LATITUDE 40° 47′ 01″, LONGITUDE 81° 55′ 48″
ELEVATION ABOVE THE SEA 1,030 FEET

JANUARY

The mean temperature for January was 16.6°, which is 10.5° below the average for this month. It is also the lowest monthly mean temperature ever recorded at this station, the mercury falling to —24° on the 13th, making this date the coldest on record for this station. The total precipitation for the month was 2.30 inches.

FEBRUARY

The mean temperature for February was 20.5°, which is 5.9° below the average for this month. The first half of month was very cold, followed on the 21st by a severe thunder, sleet and rain storm, accompanied by terrific winds from the northwest. The total precipitation for the month was 1.58 inch.

MARCH

The mean temperature for March was 30.3°, which is 6.9° below the average for the month. The greater part of the month was cold, cloudy and damp, some snow and ice remaining on the ground almost the entire month. The total precipitation was 3.77 inches.

APRIL

The mean temperature for April was 50.0°, which is slightly above the average for this month. The precipitation was far above the average, the total being 5.58 inches. Spring work was much delayed on account of wet weather.

MAY

The mean temperature for May was 61.1°, which is 2.5° above the average for this month. The rainfall was heavy, delaying farm work very late. A very heavy rainfall on the 29th, amounting to 2.38 inches. The total precipitation for the month was 5.65 inches.

JUNE

The mean temperature for June was 64.6°, this being 2.8° below the average for the month. The temperature fell to 31° on the 8th, freezing thin ice. The total precipitation for the month was 2.21 inches, this being 1.79 inch below the average for June.

JULY

The mean temperature for July was 71.6°, this being very near the average for this month for the past twenty-five years. The month was noted for its many electrical storms and very heavy rainfall on the 21st, amounting to 3.74 inches. The total precipitation for the month was 7.46 inches, this being far above the average. July, 1896, with a total fall of 8.05 inches, is the only July on record which surpasses it.

AUGUST

The mean temperature for August was 67.1°, which is slightly below the average for the month. The rainfall was very heavy, amounting to 7.32 inches. A fall of 2.75 inches on the 31st caused high waters and did much damage to growing crops.

SEPTEMBER

The mean temperature for September was 65.6°, which is 1.6° above the average for this month. The highest temperature reached was 93° on the 10th, and the lowest was 30° on the 30th. The total precipitation for the month was 4.41 inches.

OCTOBER

The mean temperature for October was 52.4°, which is 1.2° above the average for the month. Heavy frosts occurred on the 1s and 2nd but most of the vegetation was not killed till the 16th, when the mercury went down to 26°. The total precipitation was 2.18 inches.

NOVEMBER

The mean temperature for November was 41°, which is about the twenty-five-year average for November. The weather for the entire month was unusually fine. The total precipitation was 1.79 inch.

DECEMBER

The mean temperature for December was 33.1°, which is 2.6° above the average for the month. Fine weather continued throughout the month; corn husking and all outside work was well out of the way of cold weather. The total precipitation was 2.35 inches.

METEOROLOGY—TABLE I—RAINFALL

DAILY RAINFALL AND MELTED SNOW FOR 1912 AT THE EXPERIMENT STATION

Date	January	February	March	April	May	June	July	August	September	October	November	December	Date
1	....	.10	T	.04	....	....	T	....	.10	..	.20	....	
2	....	.10	....	.90	....	...	.15	.01	T	....	T	.42	2
3	....	.02	....	....	....	....	.41	....	.27	T	....	....	3
4	T	....	.10	....	....	....	....	...	....	.03	T	....	4
5	....	....	....	....	.81	....	....	....	....	....	T	.30	5
6	.05	....	....	....	....	T	....	....	1.56	....	.02	.45	6
7	....	.10	...	.64	.05	....	....	.07	....	....	1.32	....	7
8	.05	....	.18	T	....	....	T	.31	....	....	....	T	8
9	.10	....	...	....	....	....	....	.88	....	.31	.06	....	9
10	T	....	....	....	...	. ..	.21	.29	....	.16	....	....	10
11	.20	....	.05	....	.27	....	.07	.76	....	....	....	....	11
12	....	.20	.24	.40	.41	T	....	T	....	T	....	....	12
13	....	....	.05	.06	.24	....	....	....	....	....	.08	....	13
14	T	....	.04	.80	.01	....	.18	....	.42	....	.07	....	14
15	.10	....	.68	.60	....	.27	.81	...	.48	....	T	....	15
16	....	....	....	....	1.11	1.12	.02	....	....	....	....	.03	16
17	.10	....	....	.60	.05	T	....	.03	....	....	...	T	17
18	.28	....	....	T	....	T	....	....	.09	.18	...	.12	18
19	.35	.24	....	.02	....	....	....	.43	.02	.60	....	.15	19
20	....	.05	T	....	....	....	....	.03	....	....	....	....	20
21	....	.72	.68	....	..	.33	3.74	.18	....	....	....	....	21
22	.50	...	....	.03	....	....	....	....	.61	.05	....	....	22
23	.02	....	....	T	....	....	....	.52	.86	.80	....	....	23
24	T	....	.64	....	T	....	.83	....	T	.05	.02	....	24
25	T	....	....	....	....	T	....	....	....	....	....	....	25
26	....	....	....	.02	....	....	T	.38	T	....	....	....	26
27	.10	T	.02	....	....	T	....	.15	....	....	T	.20	27
28	T	.05	.26	.02	.30	....	.02	.35	....	....	.02	....	28
29	.40	....	.83	1.30	2.38	....	.90	.18	....	....	....	....	29
30	.05	...	....	.15	.02	.49	....	....	...	....	....	.68	30
31	.10	....	....	....	....	....	.12	2.75	....	T	....	....	31
Total	2.30	1.58	3.77	5.58	5.65	2.21	7.46	7.32	4.41	2.18	1.79	2.35	
Average	.074	.055	.122	.186	.183	.074	.241	.236	.147	.070	.059	.076	

METEOROLOGY—TABLE II—TEMPERATURE

MEAN TEMPERATURE FOR EACH DAY OF 1912 AT THE EXPERIMENT STATION

Date	January	February	March	April	May	June	July	August	September	October	November	December	Date
1	31.5	21.0	14.0	42.5	54.5	65.5	66.0	58.5	77 0	49 5	49 0	41.0	1
2	25.5	17.0	14 0	41.0	64.0	71.0	74.0	63.5	80.5	54.5	33.0	48.0	2
3	23.0	5.0	18.5	31 0	59.5	67 5	72.5	57.0	75.0	52.5	34.0	37.0	3
4	17.5	3.0	17.0	44.5	61.0	67.0	74.5	54.5	77.5	64 0	39.0	40.5	4
5	6.5	7.5	17.5	59 0	63.0	58.0	75.0	58.0	77.0	58.5	52.0	45.0	5
6	0.5	12.0	25.0	63 0	70.0	63.0	76.0	62.5	77.5	61.0	59.0	43.5	6
7	1.5	13.0	33.5	51.5	67.0	52.5	76.0	66.0	74.5	57.0	50 0	32.5	7
8	13.5	12.0	35.5	38.0	63 5	49.5	77.5	71.0	68.5	46.5	42.0	29.5	8
9	14.0	3.5	24.0	49.5	56.0	54 5	76 0	73.0	70.5	64.5	39.5	23.5	9
10	7.0	—4.0	23.5	46.5	55 5	56.5	78.0	70.0	77.0	66.5	47 0	31.0	10
11	8.5	5.5	24.5	51.0	58.0	61.0	75.5	68.5	72.5	68.0	56.5	32.0	11
12	3.5	14.5	34 0	60.5	62.0	68.5	72.0	70 0	60.0	61.5	58.5	17.5	12
13	—8.0	7.5	29.0	58.0	47.5	58.5	73.5	71.0	62 0	46.0	51.5	23.5	13
14	7.0	22.0	30.5	64.0	50.5	64.0	77.5	73.0	70.5	47.5	40.0	34.0	14
15	12.0	26.0	36.0	65.5	52.5	70.0	75.5	67.5	69 5	48.0	32.0	38.5	15
16	5.5	29.5	33.0	58.0	58.0	71.5	68.5	64.5	63.5	43.5	32.0	40.0	16
17	19.0	30 5	43.5	47.5	52.5	71.0	74.0	61.0	61.5	46.0	38.5	39.0	17
18	38.0	33 0	42.5	42.5	57.0	64 0	75.0	77.0	66 0	51.5	34.0	40.0	18
19	26.5	37.5	45.5	36.5	64.0	60.0	61.0	76.5	57.0	52.0	44.5	31.5	19
20	10.0	31.0	39 0	47 0	66.5	62.5	64.5	75.0	60 5	45.0	47.5	30.5	20
21	20.0	32.5	27.5	53.0	60.5	61.0	69.0	71.0	63.0	54.0	50 0	28.5	21
22	28.5	25.0	24.5	57.0	68.5	58 5	70.0	70.5	64.5	57.5	41.0	25.0	22
23	35.0	25.0	31.0	45.0	71.5	62 0	67.5	64.5	59.5	48.5	37 0	20.0	23
24	25.5	34.5	32.5	53.5	74.5	67.5	75.0	64.5	62.5	43.0	36.5	28.0	24
25	18.0	35.0	23.5	47.0	63.5	69.0	73.0	73.0	66.5	45.0	30 5	31.5	25
26	21.5	39.0	31.0	57 0	57.5	70.5	69.0	76.0	61.5	42 0	31.5	32.0	26
27	16.0	31.5	34.5	55.0	63.5	70.5	65.5	68.0	47.5	42.5	29.5	32 5	27
28	12.5	23.5	35.5	42.0	73.0	74.0	68.0	56.0	51.0	53.0	26 0	26.5	28
29	32.5	21.5	35.0	50.0	61.5	77.0	69.0	65.0	50.5	56.5	33.0	30.5	29
30	24.0	....	34.0	45.0	59.5	73.5	65.0	61.5	44.0	51.5	35.5	35 5	30
31	18.0	....	49.0	....	58 5	....	64 5	72.5	....	47.0	....	37.0	31
Monthly mean.	16.6	20.5	30.3	50.0	61 1	64.6	71.6	67.1	65.6	52.4	41.0	33.1	
25-yr. average.	27.1	26.4	37.2	48.1	58.6	67.4	71.3	69.3	64.0	51.2	39.9	30 5	

METEOROLOGY—TABLE III

MONTHLY MEAN TEMPERATURE FOR TWENTY-FIVE YEARS AT WOOSTER

Temperature in degrees Fahrenheit

Date	January	February	March	April	May	June	July	August	September	October	November	December	Year	Date
1888	23.0	28.8	31.7	46.3	57.7	68.9	70.1	67.8	57.1	44.9	40 7	31.4	47.4	1888
1889	31.1	22.9	38.7	47 1	57.8	64 5	70.0	66.0	60.8	45.3	39.3	40.7	48.6	1889
1890	36.0	36.6	30.9	48 4	56.0	69 8	70.5	65.8	59.6	50.0	41.3	28.8	49.5	1890
1891	30.0	34.0	32.0	49.0	52.0	68.0	68 0	71.0	68.0	49.0	38.0	37.0	49.7	1891
1892	22.0	33.0	33.0	47.0	57.0	70 0	70.0	69 0	61.0	49.0	38.0	28.0	48.0	1892
1893	18.0	28.0	38.8	50.1	57.6	69.3	72.0	67.9	63.2	52.3	37.7	30.9	48.7	1893
1894	32.8	26.7	43.5	50 5	57 5	67.9	71.4	69.2	66.1	52.3	36.5	32.9	50.6	1894
1895	21.9	17.9	32.4	49 5	59.4	69 9	68.6	70.9	66.5	44 2	40.4	32.8	47.8	1895
1896	27.9	29.2	29.8	54.6	64.5	65.6	70.2	68.5	60.6	45 8	44.4	30 6	49.3	1896
1897	24 0	30.0	39.3	47.2	53 4	64.3	73.2	67.0	66.7	55.9	40.7	31.8	49.4	1897
1898	31.6	27.4	43.3	45.3	58.2	68 7	74.5	71.1	66.2	52.6	38.4	27.9	50.4	1898
1899	26.6	21.3	35.0	52.1	60.0	69.4	70.0	71.0	61.6	55.0	43.2	29.0	49.5	1899
1900	30.2	25.0	31.8	47.8	61.5	68.5	72.6	74.0	67.1	58.9	40.6	30.7	50.7	1900
1901	28 3	20.0	39.1	45.2	57.9	69.1	75.9	71.6	63 3	51 7	36.6	26.1	48 7	1901
1902	26 3	21.4	41.2	46.2	61.2	65.6	73.0	66.4	62 7	53.9	47.3	28.7	49.5	1902
1903	24.4	29.0	45.7	48 0	62.2	63.0	71.8	68.8	64.4	58 2	36.8	21.7	49.1	1903
1904	18.6	20.5	37.6	42.8	59.4	67.0	69.8	66.7	64.2	50.4	39.6	28.1	47.1	1904
1905	22 6	19.8	41.2	46.8	59.2	68.0	71.6	70.0	63.8	51.0	38.3	33.1	48 8	1905
1906	35.9	25.8	30.2	51.9	59 9	68.8	71.0	74 2	67.7	51.4	40.4	31 2	50.7	1906
1907	30.8	24.6	44.9	41.7	52 8	64.6	69.9	68.6	65.0	47.4	38.5	32.1	48.4	1907
1908	28 7	26.8	43.1	50.1	62.2	68.1	72.4	69.0	66.4	53.0	41.0	31.7	51.0	1908
1909	31.7	33.6	35 9	48.4	57.9	69.3	69.6	70.4	62.2	47.8	48.3	25.2	50.0	1909
1910	26.7	23.8	47 2	50.2	54 7	64.3	72.6	70.9	65.3	54.9	34.8	24.4	49.2	1910
1911	31 3	33.8	35.0	46.5	63.5	68.9	71.7	70 6	65.2	51.8	36.7	34.7	50.8	1911
1912	16.6	20.5	30.3	50 0	61 1	64.6	71 6	67.1	65.3	52.4	41.0	33.1	47.8	1912
Average	27 1	26 4	37.2	48.1	58.6	67.4	71.3	69 3	64.0	51.2	39.9	30.5	49.2	

METEOROLOGY—TABLE IV

MONTHLY RAINFALL FOR TWENTY-FIVE YEARS AT WOOSTER

Rainfall—Inches

Date	January	February	March	April	May	June	July	August	September	October	November	December	Annual	Date
1888.....	3.52	2 43	3.34	2.48	3.82	2.31	4 54	4.35	1 92	3 18	4 95	1.39	38 23	1888
1889.....	4.33	2.42	2.13	1.58	2.97	4 86	6.73	1 98	4.05	1.36	3.53	3.93	39.87	1889
1890.....	4.71	6.20	4.37	3.10	6.01	5 57	2.67	4.66	5.12	7.45	2 61	1.74	54.21	1890
1891	2 74	4.83	3.71	1.66	2.24	7.13	3.28	1.85	0.94	1.33	5.73	2.92	38.36	1891
1892.....	2 67	2.67	3.38	2.44	7.69	7.89	4.73	2.69	3.20	0 37	2.06	1.74	41.46	1892
1893.....	4 01	6.33	1.89	5.66	6.28	2.51	1.38	1.53	1.85	5.18	2.49	1.50	40.61	1893
1894	2.19	3.37	2.36	1.74	4 41	2.23	1 38	0.76	4.07	2 53	2.41	3.15	30.60	1894
1895.....	3 92	1.00	1.98	1 69	1.38	4.20	2.19	2.30	3.92	1.15	4.21	3.51	31.45	1895
1896	1 73	2.27	3.67	3.34	3.41	3.98	8.05	1.96	5.16	0.71	1.78	2.41	38.47	1896
1897.....	2.82	2.64	2.81	2.75	4.97	2.98	3.89	3.86	0.29	0.89	5.76	2.50	36.16	1897
1898	4.10	2.27	6.44	2.56	4.60	2.70	6.79	5.53	2.15	4.25	4.14	2.29	47.85	1898
1899.....	3 29	1.64	3.95	1.28	4.42	1.95	3.73	0.53	5.56	2.21	1.59	2.78	32.93	1899
1900.....	2.78	2 74	2.25	1.70	2.23	3.71	5.65	5.97	2.19	2.10	4.30	0.99	36.61	1900
1901.....	1.58	1.20	3.09	2.46	4.32	4.82	3.32	3.58	5.64	0.81	1.62	3 47	35.91	1901
1902.....	0.63	0.83	2.99	1.46	2 57	5.55	5.26	1 87	3.49	1.52	2.62	4.07	32.86	1902
1903.....	3.54	3.69	3.29	4 55	1.59	3.69	4.61	6.58	2.07	2 63	2.25	1.95	40.44	1903
1904.....	5.27	3.90	6 22	6.59	4.45	1.67	4.93	2.03	2.27	0.87	0.40	2.68	41.28	1904
1905.....	1.83	1.36	2.61	2 51	5.97	7.50	5.14	4.47	5.10	2.32	2 04	2.08	42.93	1905
1906.....	1 93	1.06	3.57	2 27	2.98	3.81	4 93	7.38	5.16	3.55	2.39	3.77	42.80	1906
1907	6.92	1.09	5.80	2.69	3.48	3 81	3.96	2.04	3.13	2.34	1.33	3.41	40.00	1907
1908.....	1.96	3.89	5.02	3.64	4.56	2.17	3.44	3.17	0.73	1.22	1.09	3.05	33.94	1908
1909.....	2 95	5.22	3.02	3.92	4.06	6.44	4.05	5.21	1.73	2.16	2.91	2.55	44.22	1909
1910.....	5.29	4 41	1 00	3.22	4.87	2.57	1.12	0 95	2.59	5.24	2.36	2.29	35.91	1910
1911.....	4.13	2 25	3.26	3.71	2.45	3 78	3.36	5.19	6.53	5.45	2 50	4.54	47.15	1911
1912.....	2.30	1.58	3.77	5 58	5.65	2 21	7.46	7.32	4.41	2.18	1.79	2 35	46.60	1912
Average...	3.25	2.85	3.44	2 08	4.06	4.00	4 26	3.51	3 33	2.52	2.75	2.68	39.63	

METEOROLOGY—TABLE V

MONTHLY MEAN TEMPERATURE FOR TWENTY-FIVE YEARS FOR THE STATE

Temperature in degrees Fahrenheit

Date	January	February	March	April	May	June	July	August	September	October	November	December	Year	Date
1888.....	24.3	30 5	34.2	49.2	58.8	70.4	72.1	70.4	60.3	47.9	42.9	33 3	49 5	1888
1889.....	33.3	25 8	40.2	49.9	60.2	66.7	72 5	69.1	62.9	47 9	41.0	43.8	51.1	1889
1890.....	38.8	39.4	34.5	51.3	59.2	73.3	73.0	68.8	62.1	52 7	42.2	31.2	52 2	1890
1891.....	33 0	36.0	35.0	52 0	58.0	71.0	69 0	70 0	67.0	51.0	40 0	39.0	51.8	1891
1892.....	24.0	35.0	35.0	49.0	59.0	73 0	73 0	71.0	64.0	52.0	38.0	29.0	50.2	1892
1893	18.0	29.0	38.0	50.2	58.3	70 6	74 5	70 7	65 2	53.7	39.3	32.7	50.0	1893
1894.....	33.7	28.9	45 1	50 6	60.0	71.3	74.3	71 2	67.8	53.9	37.5	33.9	52.4	1894
1895.....	23.4	19 6	35.5	51.7	61.1	72.0	71.6	73.5	69.0	46 9	41.9	33.9	50.0	1895
1896.....	29.4	30.5	32 4	56.9	67.9	69.5	73.2	71.8	62.7	49.0	45.1	32.9	51.8	1896
1897.....	25.5	32.4	41 5	49.3	56.3	68.1	75.5	69 4	66 9	58.1	42 2	32.8	51.5	1897
1898.....	32.4	30.0	45.0	47.2	61.0	71.9	76.0	73.5	67.8	54.1	38.8	28 8	52.2	1898
1899.....	27 8	21.6	36.9	53.3	63.3	71.5	74.1	73.7	64.1	57.4	43.9	30.2	51.5	1899
1900.....	31.1	26.0	32 9	50.1	62.9	69 8	74.1	76.3	69.3	60 5	41 6	31.6	52 2	1900
1901.....	29.2	21.1	39.5	46.7	59.0	70.9	78 1	73.1	64.8	53.8	37.7	27.9	50.2	1901
1902.....	27.3	22.3	41 9	48.2	62.6	66.9	74 0	68 9	63.6	54.6	48 5	29 4	50.7	1902
1903...	27.1	29.9	46.7	49 9	63.9	64.4	72.9	70.7	65.6	54.0	37.2	23.4	50.5	1903
1904..... ..	20.7	22.9	39.7	44.4	60.7	68.4	71.4	68.8	65.5	52.2	40.5	28.0	48 6	1904
1905...	22.7	20.8	42.7	48.5	60.7	69.2	73.0	71.7	65.3	52.6	39.6	32.9	50.0	1905
1906.....	35.7	27.3	31.3	52.1	61.3	69.8	72.1	74.6	68.9	52.7	41.1	32 3	51.6	1906
1907.....	32.2	26.0	45.9	42.5	54.5	65.6	72.6	69.5	65 5	48.8	39.1	33.0	49.6	1907
1908.....	29.1	27.7	43 4	51.0	62 8	69 2	73.9	71.2	68.0	54.1	41.7	33.1	52.1	1908
1909.....	32.2	34.7	37.3	49.1	58.7	70.1	70.7	71.9	63.2	48.8	48.9	25 4	50 9	1909
1910.....	27.6	25.5	48.2	51 5	56.0	65.9	73.8	71.4	66 3	56.7	36 3	25.5	50.4	1910
1911.... ...	32 8	34.5	37 4	47 7	66.3	70.9	74 0	72.5	67 5	53.3	37 6	36.3	52.6	1911
1912.....	17.9	22.4	32 9	51.9	62.5	66 6	73 4	69.2	67.4	54 8	42 2	33.8	49.6	1912
Average...	28.4	28.0	38.9	49.8	60.6	69.5	73.3	71 3	65.6	52.9	41.0	31.8	50.9	

METEOROLOGY—TABLE VI

MONTHLY RAINFALL FOR TWENTY-FIVE YEARS FOR THE STATE

Rainfall—Inches

Date	January	February	March	April	May	June	July	August	September	October	November	December	Annual	Date
1888.....	3.65	1.74	3 55	1 99	3.77	3.41	4.40	5.16	2.27	3.98	4 25	1.47	39 64	1888
1889	3 13	1.35	1 38	1.79	3.71	4.13	4.19	1 50	3 62	1.78	4.02	2.81	33.41	1889
1890	4.94	5.25	5.29	3.45	5.52	4.50	1.99	4.66	5 56	4 27	2 53	2.37	50.33	1890
1891.....	2.82	4 91	4.19	2.13	2.20	4.82	3.82	3 07	1.50	1 76	5.00	2 39	38.61	1891
1892	2.11	3 03	2.86	3.32	6.32	5.61	3.80	2.99	2.36	0.73	2.32	1 71	37.16	1892
1893	2.56	5.13	2.09	6 37	4.97	3.34	2.49	2 17	1.57	4.24	2.09	2.61	39.63	1893
1894	2.14	2.79	2.16	2.31	4.00	2.65	1.56	1.67	3.31	2.01	2 17	2 98	29.75	1894
1895	4 00	0.69	1.59	2.11	1.80	2.47	2.00	2.96	1.66	1.22	4.11	3 85	28.46	1895
1896.....	1 67	2 21	3.34	2.78	2.67	4.81	8.11	3.38	5.13	1 20	2.63	1 65	39.58	1896
1897.....	1 93	3 64	5 17	3 27	3.93	2.85	4.65	2.72	0 78	0 64	6 62	2.39	38 59	1897
1898.....	5.25	2 32	6.23	2.38	4.10	2.86	3.98	4.50	2.56	3.72	3.17	2.71	43 78	1898
1899.....	3 01	2.11	4.64	1.61	4 32	2.96	4.17	1 82	2.68	2 14	1.72	3 16	34 32	1899
1900.....	2 37	3.46	2 35	1.89	2.40	3.01	4.62	3.68	1 76	1 89	4 15	1.24	32.82	1900
1901.....	1.70	1.24	2.66	3.40	3.96	4.44	2 72	3.33	2.86	0.73	1 53	3.79	32.36	1901
1902.....	1.42	0.88	2.76	2.21	3.09	7.48	4 69	1.67	4.55	2.28	2 60	3.95	37 58	1902
1903	2.36	4 95	3 51	4 01	2.82	4.02	3.67	3.20	1.52	2.62	2.10	2.07	36 85	1903
1904	3.85	2.69	5.67	3.53	3.79	2.88	4.13	2.74	1.95	1 50	0.37	3.09	36.19	1904
1905.....	1.73	1.58	2.50	3.10	5.63	4.72	3.93	4.46	2.86	3.65	2 63	2 29	39 08	1905
1906.....	1.98	1.16	3.97	1.89	2.17	3.42	5.14	4 77	2 92	3.19	2.59	3.68	36.88	1906
1907.....	6.06	0.85	5.55	2.74	3.47	4.57	5.36	2 48	3.92	2.76	1.93	3.16	42.85	1907
1908.....	1.82	4.10	5 43	3.71	4.72	2.51	4 08	2 59	0.58	1 17	1.06	2.33	34.10	1908
1909.....	3.24	5 39	2 77	4 13	4.72	5.86	3.76	3 56	1.78	2 31	2.52	2.61	42.65	1909
1910.....	4.48	4.05	0.26	3.49	3.80	2.66	3.17	1.58	4.05	4.19	1.89	2.41	36.03	1910
1911.....	3 90	1.95	2 33	4.35	1.69	3 92	2.40	5.39	4 87	4 99	2.91	3.93	42 63	1911
1912	2.12	2.08	4 17	4 47	3.12	3.17	5.70	4.08	3.11	2 44	1.10	2 26	37.82	1912
Average...	2 97	2.78	3.46	3.06	3 71	3.98	3.94	3 21	2.79	2 46	2.72	2.68	37.66	

METEOROLOGY—TABLE VII

MEAN TEMPERATURE AND RAINFALL AT THE STATION AND FOR THE STATE, 1912, AND FOR TWENTY-FIVE YEARS

Temperature in degrees Fahrenheit. Rainfall in inches.

	January	February	March	April	May	June	July	August	September	October	November	December	Year
Mean temperature at the Station, 1912	16.6	20 5	30 3	50 0	61 1	64.6	71 6	67.1	65.6	52 4	41.0	33 1	47.8
Twenty-five years average temperature at the Station	27.1	26.4	37.2	48.1	58 6	67.4	71.3	69.3	64.0	51 2	39 9	30.5	49 2
Mean temperature for the state, 1912	17.9	22.4	32.9	51.9	62.5	66.6	73.4	69.2	67 4	54.8	42.2	33.8	49.6
Twenty-five years average temperature for the state	28.4	28.0	38.9	49.8	60.6	69.5	73.3	71.3	65.6	52.9	41.0	31.8	50.9
Rainfall at the Station, 1912	2.30	1.58	3.77	5.58	5.35	2.21	7.46	7.32	4.41	2 18	1 79	2.35	3.88
Twenty-five years average rainfall at the Station	3.25	2.85	3 44	2.08	4.06	4.00	4.26	3.51	3.33	2 52	2.75	2.68	3.30
Rainfall for the state, 1912	2.12	2.08	4.17	4.47	3.12	3.17	5.70	4.08	3.11	2.44	1.10	2 26	3.15
Twenty-five years average rainfall for the state	2.97	2.78	3.46	3.06	3.71	3.88	3.94	3 21	2 79	2 46	2 72	2.68	3.14

METEOROLOGY—TABLE VIII

SUMMARY BY MONTHS FOR 1912

AT THE STATION	Temperature											Number of days				Precipitation in inches			Prevailing wind
	Mean	Highest	Date	Lowest	Date	Range	Mean daily range	Greatest daily range	Date	Least daily range	Date	Clear	Fair	Cloudy	Rainfall .01 or more	Monthly rainfall	Average daily rainfall	Monthly snowfall	
January	16.6	44	18	—24	13	68	17.7	37	8	6	23	3	6	22	13	2.30	.074	8.75	N. W.
February	20.5	55	26	—16	10	71	20.4	43	13	9	19	8	4	17	9	1 58	.055	11.75	N. W.
March	30.3	68	31	6	1	62	19.7	38	31	7	22	7	3	21	12	3.77	.122	8 45	N. W.
April	50.0	78	12	23	19	55	24.0	42	11	10	*27	13	6	11	14	5 58	.186	4.00	N. W.
May	61.1	86	23	36	13	50	22.9	35	10	11	21	20	4	7	11	5.65	.182	....	S. W.
June	64.6	88	29	31	8	57	24.3	38	11	10	17	18	4	8	4	2.21	.074	....	S. W.
July	71.6	90	*14	51	19	39	21.8	29	15	12	29	12	15	4	12	7.46	.241	....	S. W.
August	67.1	89	18	41	5	48	21.3	34	5	10	29	9	12	10	16	7.32	.236	....	S. W.
September	65 6	93	10	30	30	63	22 7	39	9	9	*22	18	6	6	9	4.41	.147	....	S. W.
October	52.4	82	11	26	*16	56	26.3	38	*6	13	22	17	6	8	8	2.18	.070	....	S. W.
November	41.0	68	*6	18	*16	50	18.1	28	16	7	*15	8	6	16	8	1.79	.059	.50	S. W.
December	33.1	58	6	8	12	50	17.7	30	1	6	3	7	6	18	8	2.35	.076	3.50	S. W.
Sums and averages	47.8	93	Sept. 10	—24	Jan. 13	56	21.4	43	Feb. 13	6	Dec. *3	40	77	148	124	46.60	.127	36.95	S. W.
FOR THE STATE																			
January	17.9	58	23	—37	13	95	....	51	..	..	..	8	8	15	11	2.12	.068	10.60	W
February	22.4	68	26	—25	10	93	....	52	..	..	..	10	8	11	9	2.08	.072	9 80	W
March	32.9	80	31	—3	16	83	....	48	..	..	..	9	7	15	12	4.17	.135	6.90	N. W.
April	51.9	89	12	15	3	74	....	51	..	..	..	12	8	10	12	4 47	.149	2.10	S. W.
May	62.5	91	*22	31	13	60	....	46	..	..	..	15	9	7	10	3.12	.101	T	S. W.
June	66.6	93	29	28	8	65	....	47	..	..	..	16	9	5	7	3.17	.106	....	S. W.
July	73.4	101	15	42	19	59	....	37	..	..	..	9	15	7	11	5 70	.184	....	S. W.
August	69.2	95	18	40	*4	55	....	42	..	..	..	10	13	8	13	4.08	.132	....	S. W.
September	67.4	99	5	29	27	70	....	45	..	..	..	16	8	6	8	3.11	.104	....	S. W.
October	54.8	93	11	23	*26	70	....	55	..	..	..	18	6	7	6	2.44	079	T	S. W.
November	42 2	82	6	8	28	74	....	50	..	..	..	13	7	10	5	1.10	.037	.60	S. W.
December	33.8	74	10	—5	12	79	....	51	..	..	..	10	8	13	8	2.26	.073	3.90	S. W.
Sums and averages	49.6	101	July 15	—37	Jan. 13	73	....	55	..	..	..	146	106	114	112	37.82	.103	33.90	S. W.

*On other dates also.

METEOROLOGY—TABLE IX

SUMMARY BY YEARS AND GRAND SUMMARY FOR TWENTY-FIVE YEARS AT WOOSTER

	1888	1889	1890	1891	1892	1893	1894	1895
AT	WOOSTER					EXPERIMENT STATION		
Mean temperature	47.4°	48.6°	49.5°	49.7°	48°	48.7°	50.6°	47.8°
Highest temperature		91.5° *1	94.5° Aug. 3	99° Aug. 8	98° July 25	95° *5	98° July 19	98° June 4
Lowest temperature	—5° Feb. 9	—5° *2	1° Mar. 2	0° Mar. 1	—20° Jan. 20	—9° Jan. 11	—7° Dec. 28	—6° *8
Range of temperature		96.5°	93.5°	99°	118°	104°	105°	104°
Mean daily range of temperature		18 7°	18.9°	21°	19°	20.2°	22.9°	21.8°
Greatest daily range of temperature		42° Apr. 23	41° Jan. 13	42° Sept. 23	46° July 17	45° Aug. 9	45° July 31	55° Oct. 6
Least daily range of temperature		2° Jan. 6	4.5° *3	4° Feb. 8	4° *4	3° *6	4° *7	1° Nov. 22
Number of clear days		125	109	116	116	96	127	125
Number of fair days		103	119	110	123	164	154	117
Number of cloudy days		137	137	125	98	105	84	123
Number of days rain fell		119	149	119	119	129	130	102
Total yearly rainfall	38.23 inches	39.87 inches	54 21 inches	38.36 inches	41.46 inches	40.61 inches	30.60 inches	31.45 inches
Greatest monthly rainfall	4.51 inches	6.73 in. July	7.45 in. Oct.	4.26 in. June	7.89 in. June	6.33 in. Feb.	4.41 in. May	4.21 in. Nov.
Least monthly rainfall	1.39 inch	1.36 in. Oct.	1.74 in. Dec.	1.95 in. April	1.37 in. Oct.	1.38 in. July	0.76 in. Aug.	1.00 in. Feb.
Prevailing direction of wind	S.	S.	S.	S.	S. W.	S. W.	S. W.	W.

*1 July 10 and Sept. 1. *2 Feb. 23 and 24. *3 Jan. 8 and Sept. 10. *4 March 5, Nov. 1, 3 and 25, Dec. 1 and 18. *5 July 7, 25 and Sept. 7. *6 Jan. 24, Feb. 11 May 26. *7 Dec. 1 and 21. *8 Jan. 12, 13, and Feb. 5.

METEOROLOGY—TABLE IX. Continued

SUMMARY BY YEARS AND GRAND SUMMARY FOR TWENTY-FIVE YEARS AT WOOSTER

	1896	1897	1898	1899	1900	1901	1902	1903	1904
AT	EXPERIMENT STATION								
Mean temperature	49 3°	49.4°	50 4°	49 5°	50.7°	48.7°	49.5°	49.1°	47.1°
Highest temperature	93° Aug. 9	96° *10	96° July 3	95° Aug. 20	95° July 4	95° *12	97° May 4	94° *14	92° July 17
Lowest temperature	—6° Feb. 19	—18° Jan. 26	—9° Feb. 2	—21° Feb. 10	—10° Feb. 27	—11° Dec. 21	—9° Feb. 5	—9° Feb. 19	—21° Jan. 5
Range of temperature	99°	114°	105°	116°	105°	106°	106°	103°	113°
Mean daily range of temperature	19°	21.5°	20 3°	22 9°	20 6°	20.1°	21.3°	21.6°	21.5°
Greatest daily range of temperature	43° May 8	49° Oct. 5	50° Nov. 14	52° Oct. 24	43° May 6	43° April 30	45° May 4	48° Nov. 8	48° Dec. 28
Least daily range of temperature	3° *9	0° Feb. 6	5° *11	3° Feb. 18	2° Nov. 20	2° April 20	4° *13	3° *15	0° Dec. 25
Number of clear days	130	124	133	126	149	152	183	148	149
Number of fair days	106	123	104	114	68	66	49	58	47
Number of cloudy days	130	115	128	125	118	147	133	159	170
Number of days rain fell	134	123	134	116	132	142	140	121	136
Total yearly rainfall	38.47 inches	36 16 inches	47.85 inches	32 93 inches	36.61 inches	35 91 inches	32 86 inches	40.44 inches	41.28 inches
Greatest monthly rainfall	8.05 in. July	5.76 in. Nov.	6.79 in. July	5.56 in. Nov	5.97 in. Nov.	5.64 in. Nov.	5 55 in. June	6.58 in. Aug	6.59 in. April
Least monthly rainfall	0.71 in. Oct.	0.29 in. Sept.	2.15 in. Sept.	0.53 in. Aug	0.99 in. Dec.	0.81 in. Oct.	0.63 in. Jan.	1.59 in. May	0.40 in. Nov.
Prevailing direction of wind	S. W.	S. W.	N. W.	N. S. W.	S. W.	S. W.	S. W.	S. W.	S. W.

*9 Jan. 10 and March 8. *10 July 5 and 6. *11 Jan. 21, March 2 and Dec. 18. *12 July 1, 22 and 28.

METEOROLOGY—TABLE IX. Concluded

SUMMARY BY YEARS AND GRAND SUMMARY FOR TWENTY-FIVE YEARS AT WOOSTER

	1905	1906	1907	1908	1909	1910	1911	1912	Summary for twenty-five years
AT	EXPERIMENT STATION								
Mean temperature	48.8°	50 7°	48.4°	51.0°	50 0°	49.2°	50 8°	47.8°	49.2°
Highest temperature	92° July 17	92° June 9	90° Aug. 12	95° *17	90° Sept. 14	94° *19	101° July 4	93° Sept. 10	101° July 4, '11
Lowest temperature	—12° Feb. 14	—14° Feb. 7	—14° Jan. 20	—3° Feb. 9	—11° Jan. 13	—12° Feb. 19	—11° Jan. 4	—24° Jan. 13	—24° Jan. 13, 12
Range of temperature	104°	106°	104°	98°	101°	106°	112°	117°	125°
Mean daily range of temperature	20.8°	20.6°	20.8°	23°	21.4°	23.1°	21.5°	21.4°	21°
Greatest daily range of temperature	42° *16	40° April 18	42° Jan. 20	49° Sept. 18	43° *18	51° April 14	45° Mar. 25	43° Feb. 13	55° Oct. 6, '95
Least daily range of temperature	2° Dec. 18	2° Jan. 18	4° Aug. 6	5° Dec. 13	3° Dec. 14	3° Nov. 16	4° Mar. 28	6° Jan. 23	0° *20
Number of clear days	144	130	109	141	114	127	110	140	130
Number of fair days	44	60	58	78	76	67	84	75	90
Number of cloudy days	177	175	198	147	175	171	170	148	141
Number of days rain fell	118	142	138	117	144	133	142	124	130
Total yearly rainfall	42 93 inches	42 80 inches	40.00 inches	33.94 inches	44 22 inches	35.91 inches	47 15 inches	46 60 inches	39.63 inches
Greatest monthly rainfall	7.50 in. June	7.38 in. Aug	6.92 in. Jan.	5.02 in. Mar.	6.44 in. Jan.	5.29 in. Jan.	6.53 in. Sept.	7.46 in. July	8.05 in. July, '96
Least monthly rainfall	1.36 in. Feb.	1.06 in. Feb.	1.09 in. Feb.	0.73 in. Sept.	1.73 in. Sept.	0 95 in. Aug.	2 25 in. Feb.	1.58 in. Feb.	.29 in. Sept. '97
Prevailing direction of wind	S.	S.	N. S. W.	S. W.	S. W.	S. W.	N. W.	S. W.	S. W.

*13 Jan. 22 and April 28. *14 July 4 and 9. *15 Jan. 4, Nov. 27 and Dec. 6. *16 April 9 and May 2. *17 Aug. 3, Sept. 24 and 25. *18 May 8 and October 9.
*19 July 25 and Aug. 15 and 16. *20 Feb. 6, 1897, and Dec. 25, 1904.

METEOROLOGY—TABLE X

SUMMARY BY YEARS AND GRAND SUMMARY FOR THIRTY YEARS FOR THE STATE

FOR THE STATE	1883	1884	1885	1886	1887	1888	1889	1890
Mean temperature	49.4°	50.6°	48 0°	49 6°	52.0°	49.5°	51.1°	52.2°
Highest temperature	98° Aug. 22	98° *1	101° July 21	98.6° July 18	108° July 18	102° Aug. 3	99.5° Aug. 31	103.1° Aug. 3
Lowest temperature	—17.2° Jan. 22	—34° Jan. 25	—31.5° Jan 29	—21.5° Jan. 12	—21° Jan. 7	—15° Jan. 27	—13.5° Feb. 24	—4° Mar. 7
Range of temperature	115.5°	133°	132°	120 1°	29°	117°	113°	107.1°
Greatest daily range of temperature	55.2° Mar. 18	50° *2	58.5° Jan. 30	57° Dec. 11	57° Dec. 11	50°	53° Mar. 30	48.5 Apr. 11
Average number of days rain fell	146	145	148	131	121	125	118	149
Mean yearly rainfall	44.98 inches	40.19 inches	30.08 inches	36.71 inches	33.63 inches	39.64 inches	33.41 inches	50.33 inches
Mean daily rainfall	.123 inch	.110 inch	.082 inch	.101 inch	.092 inch	.108 inch	.092 inch	.138 inch
Prevailing direction of wind	S. W.	S. W.	S. W.	S. W.	S. W.	S. W.	S. W.	S. W.
	1891	1892	1893	1894	1895	1896	1897	1898
Mean temperature	51.8°	50.2°	50.0°	52.7°	50 0°	51.8°	51.5°	52.2°
Highest temperature	101° Aug. 10	103° July 25	102° July 19	105° *4	106° July 20	103° Apr. 17	113° July 4	105° July 1
Lowest temperature	—8° Mar. 2	—25° Jan. 20	—24° Jan. 11	—27° Dec. 29	—24° Feb. 6	—18° *6	—27° Jan. 26	—20° Feb. 3
Range of temperature	109°	128°	126°	132°	130°	121°	140°	125°
Greatest daily range of temperature	50° *3	51° Sept. 25	54.6°	60° Oct. 19	59° *5	53° Mar. 25	67° *7	
Average number of days rain fell	120	121	113	100	89	124	110	121
Mean yearly rainfall	38.61 inches	37.16 inches	39.63 inches	29.75 inches	28.46 inches	39 58 inches	38.59 inches	43.78 inches
Mean daily rainfall	.106 inch	.102 inch	.109 inch	.081 inch	.078 inch	.108 inch	.106 inch	.119 inch
Prevailing direction of wind	S. W.	S. W.	S. W.	S. W.	S. W.	S. W.	S. W.	S. W.

*1 Sept. 28 and Oct. 1. *2 Sept. 5 and Dec. 4. *3 April 27 and 30. *4 July 18 and 19. *5 Jan. 15 and March 29. *6 Feb. 20 and 21. *7 Sept. 25 and 26.

METEOROLOGY—TABLE X. Concluded

SUMMARY BY YEARS AND GRAND SUMMARY FOR THIRTY YEARS FOR THE STATE

FOR THE STATE	1899	1900	1901	1902	1903	1904	1905	1906
Mean temperature	51.5°	52.2°	50.2°	50.7°	50.5°	48.6°	50 0°	51.6°
Highest temperature	105° Sept. 6	103° *8	109° July 22	100° July 8	104° July 25	99° *10	100° July 10	101° Aug. 21
Lowest temperature	—39° Feb. 10	—20° *9	—20° Feb. 23	—17° Feb. 14	—20° Feb. 19	—30° Jan 4	—20° Feb. 3	—23° Feb. 6
Range of temperature	144°	123°	129°	117°	124°	129°	120°	124°
Greatest daily range of temperature	.....	57° Feb. 9	61° Dec. 14	56° May 4	60° Sept. 25	54° Jan. 5	57° May 24	54° Oct. 13
Average number of days rain fell	107	107	107	114	111	117	118	124
Mean yearly rainfall	34.32 inches	32.82 inches	32.36 inches	37.58 inches	36.85 inches	36.19 inches	39.08 inches	36.88 inches
Mean daily rainfall	.094 inch	.090 inch	.089 inch	.103 inch	.101 inch	.099 inch	.107 inch	.101 inch
Prevailing direction of wind	S. W.	S. W.	S. W.	S. W.	S. W.	S. W.	S. W.	S. W.

	1907	1908	1909	1910	1911	1912	Summary for thirty years	
Mean temperature	49.6°	52.1°	50 9°	50 4°	52.6°	49.6°	50.7°	
Highest temperature	98° July 22	104° Aug. 3	97° July 30	100° Aug. 17	107° July 4	101° July 15	113° July 4, '97	
Lowest temperature	—19° Feb. 6	—22° Feb. 9	—20° Dec. 30	—25° Feb. 19	—19° Jan. 4	—37° Jan. 13	—39° Jan. 10,'99	
Range of temperature	117°	126°	117°	125°	126°	138°	152°	
Greatest daily range of temperature	57° Feb. 13	60° Oct. 5	51°	.....	.....	.....	67° Sept. '97	
Average number of days rain fell	129	111	124	112	127	112	120	
Mean yearly rainfall	42.85 inches	34.10 inches	42 65 inches	36.03 inches	42.63 inches	37.82 inches	37.56 inches	
Mean daily rainfall	.117 inch	.093 inch	.117 inch	.099 inch	.117 inch	.104 inch	.103 inch	
Prevailing direction of wind	S. W.	S. W.	S. W.	S. W.	S. W.	S. W.	S. W.	

*8 July 4, Aug. 6 and 10. *9 Jan. 20 and Feb. 27. *10 July 17 and Sept. 29.

METEOROLOGY—TABLE XI

MONTHLY MAXIMUM AND MINIMUM TEMPERATURE FOR TWENTY-FIVE YEARS FOR WOOSTER

Date	January		February		March		April		May		June		July		August		September		October		November		December	
	Highest	Lowest	Highest	Lowest	Highest	Lowest	Highest	Lowest	Highest	Lowest	Highest	Lowest	Highest	Lowest	Highest	Lowest	Highest	Lowest	Highest	Lowest	Highest	Lowest	Highest	Lowest
1888	..	—5	..	—1	..	8	..	19	..	31	..	42	..	43	..	41	..	31	..	27	..	21	..	9
1889	54	12	54	—5	71	16	80	21	90	30	87	38	92	49	90	45	92	37	76	23	65	16	65	18
1890	66	5	65	14	60	1	74	23	83	30	88	46	94	45	95	40	88	38	81	30	66	24	48	15
1891	51	12	60	3	61	0	83	21	82	28	89	44	89	49	99	53	98	42	88	25	71	10	58	16
1892	54	—20	54	6	65	10	76	28	86	38	90	56	98	48	92	49	88	36	81	25	67	16	61	—2
1893	51	—9	47	—2	75	10	83	24	84	36	92	45	95	47	93	37	95	28	85	24	66	15	62	6
1894	56	1	64	—1	75	14	92	24	83	35	93	37	98	41	96	41	93	36	80	28	65	31	57	—7
1895	54	—6	60	—6	59	9	80	21	94	27	98	35	92	42	94	42	93	34	73	19	72	18	61	—2
1896	53	—2	58	—6	65	4	89	19	86	44	87	39	92	45	93	41	92	34	71	21	69	13	56	1
1897	61	—18	54	0	69	11	79	21	78	31	88	37	96	50	92	42	96	28	86	25	65	12	60	2
1898	64	—1	64	—9	71	12	77	16	81	32	90	40	96	45	90	46	90	38	86	24	66	13	56	1
1899	55	—6	57	—21	67	9	86	21	86	30	92	40	94	45	95	39	94	32	92	22	66	22	63	—2
1900	54	—5	65	—10	57	—4	78	20	89	25	90	44	95	44	94	49	89	41	86	30	69	6	55	11
1901	53	—4	40	0	69	—1	82	22	82	33	91	38	95	50	94	47	86	34	79	26	67	18	64	—11
1902	47	2	59	—9	69	9	83	24	97	29	89	39	93	46	88	40	85	32	77	27	72	24	60	—5
1903	60	—8	63	—9	76	21	74	19	89	27	88	41	94	42	92	43	89	32	79	26	71	9	49	—2
1904	60	—21	57	—10	74	13	72	12	88	33	88	44	92	46	90	42	89	31	83	19	68	15	63	—1
1905	59	—8	43	—12	79	10	77	23	82	31	89	38	92	50	90	46	87	36	80	23	61	16	52	13
1906	72	6	65	—14	61	—5	80	21	86	29	92	47	88	46	91	48	90	44	74	22	72	23	58	6
1907	67	—14	50	—5	82	12	78	15	81	29	89	40	88	40	90	43	88	34	82	22	55	18	56	9
1908	51	4	56	—3	75	21	80	24	89	30	91	36	92	46	95	43	95	28	84	24	68	17	59	7
1909	66	—11	60	—2	60	12	81	13	84	31	89	42	89	45	89	41	90	30	81	22	72	21	66	—6
1910	45	—1	48	—12	84	18	81	23	82	25	90	35	94	44	94	38	91	34	85	24	66	14	49	0
1911	56	—11	62	9	67	4	77	16	92	28	94	46	101	43	97	41	87	37	75	22	65	10	61	7
1912	44	—24	55	—16	68	6	78	23	86	36	88	31	90	51	89	41	93	30	82	26	68	18	58	8
Extremes	72	—24	65	—21	84	—5	92	12	97	25	98	31	101	40	99	37	98	28	92	19	72	6	66	—11

METEOROLOGY—TABLE XI. Concluded

MONTHLY MAXIMUM AND MINIMUM TEMPERATURE FOR TWENTY-FIVE YEARS FOR THE STATE

Date	January		February		March		April		May		June		July		August		September		October		November		December	
	Highest	Lowest	Highest	Lowest	Highest	Lowest	Highest	Lowest	Highest	Lowest	Highest	Lowest	Highest	Lowest	Highest	Lowest	Highest	Lowest	Highest	Lowest	Highest	Lowest	Highest	Lowest
1888	68	—15	69	—10	77	—6	92	19	91	23	102	34	97	42	102	35	92	26	80	22	81	17	63	1
1889	61	1	70	—14	82	10	88	15	96	26	92	38	98	47	100	40	99	28	83	17	77	9	73	10
1890	75	1	73	1	69	—4	86	20	92	28	101	39	101	43	103	40	92	33	85	29	77	17	65	3
1891	65	3	80	—2	74	—5	95	15	93	25	98	40	95	41	101	39	99	36	93	20	76	0	66	9
1892	61	—25	74	1	80	6	90	14	99	28	101	47	103	40	99	45	96	34	89	20	76	8	70	—12
1893	63	—24	68	—14	87	—8	93	20	94	23	102	40	101	42	101	37	100	24	95	15	76	1	72	—5
1894	66	—16	76	—15	91	3	97	16	98	31	102	29	105	36	104	36	103	27	90	15	79	4	70	—27
1895	62	—19	70	—24	86	—7	90	16	102	19	105	29	106	34	103	31	105	25	84	8	85	5	79	—13
1896	70	—4	78	—18	73	—7	103	15	99	36	98	23	102	39	102	35	100	25	85	17	79	7	67	—15
1897	71	—27	72	—9	82	5	92	11	91	25	102	31	113	44	101	38	105	25	97	20	76	8	71	—7
1898	71	—18	72	—20	84	5	87	10	92	29	99	39	105	38	100	40	102	38	96	20	76	2	67	—18
1899	66	—15	67	—39	76	0	94	6	96	28	102	36	105	41	104	39	107	26	94	20	79	18	69	—7
1900	67	—26	80	—20	70	—9	87	15	97	20	96	38	103	38	103	40	100	33	93	23	80	..	65	—2
1901	67	—10	60	—20	84	—8	91	18	90	26	103	30	109	48	101	42	98	29	88	20	79	10	73	—19
1902	63	—11	66	—17	82	—4	90	17	98	24	98	33	100	43	97	37	94	24	88	21	87	17	63	—11
1903	73	—13	69	—20	85	11	88	10	93	22	95	35	104	42	101	38	98	26	93	15	88	2	57	—11
1904	70	—30	75	—18	86	—1	81	7	95	27	98	37	99	41	97	38	99	23	92	15	75	0	69	—16
1905	65	—17	54	—20	85	—5	89	12	93	26	99	34	100	44	96	41	95	30	89	20	71	10	58	2
1906	79	—14	72	—23	74	—12	91	18	94	24	100	34	98	43	101	43	98	36	91	18	82	14	63	—15
1907	75	—23	66	—19	96	—2	86	10	89	24	96	36	98	37	96	40	93	29	88	19	71	11	69	2
1908	59	—8	66	—22	85	12	91	16	96	25	100	33	102	42	104	37	100	23	90	15	77	5	68	—2
1909	74	—17	70	—17	70	6	90	13	91	24	96	36	97	40	96	35	94	25	96	16	80	15	75	—20
1910	62	—24	68	—25	90	12	88	19	88	21	97	33	98	42	98	36	93	34	94	18	78	11	63	—10
1911	68	—19	76	—2	81	1	86	9	101	25	101	40	107	41	104	39	97	33	88	20	79	8	79	—3
1912	58	—37	68	—25	80	—3	89	15	93	31	93	28	101	42	95	40	99	29	93	23	82	8	74	—5
Extremes	79	—37	80	—39	96	—12	103	6	102	19	105	28	113	34	104	31	107	23	97	8	88	0	79	—27

TABLE XII: MONTHLY RAINFALL AT DISTRICT TEST-FARMS.

Rainfall—inches.

Date	January	February	March	April	May	June	July	August	September	October	November	December	Year	Date
							Strongsville							
1897	.91	1.62	3.29	3.88	5.99	1.88	5 56	3.25	1.13	.87	7.02	1.92	37.32	1897
1898	5.47	3.75	4.82	2.37	3 43	5.60	4.25	5.69	2.72	5.59	3.25	7.39	54.33	1898
1899	4.35	2.32	5.25	3.11	5.58	2.10	6.75	.61	3.14	2.86	1.55	6.36	42.98	1899
1900	3.22	5 53	3.01	2.22	1.85	1.36	4.73	2.49	3 56	2.22	4.91	1.94	37.04	1900
1901	2.73	2.20	4.35	4.76	5.14	3.32	3.15	7.46	6.51	.47	2.51	5.34	48 94	1901
1902	1.17	1.40	2.64	2.91	4.29	9 34	7.39	4.52	5.58	2.73	2.35	3.34	47.66	1902
1903	2.37	2.97	3.18	6.68	1.45	3.78	6.49	8.72	1.88	3.09	2.70	2.62	45.93	1903
1904	6.51	3.59	4.68	3.47	6.07	1.45	5.80	3.48	2.73	1.20	.50	3.87	43.35	1904
1905	2.48	2.73	3.24	3.97	4.38	2.18	5.04	4.11	3.50	2.95	2.92	1.66	39.16	1905
1906	2.03	2.06	....	1.93	1.01	4.67	2.72	4.30	6.70	....	4.77	5.12	.....	1906
1907	5.21	1.20	....	....	...	...	...	...	...	...	....	..	.....	1907
1908	....	....	....	....	2.82	2.78	3.70	3.10	1.00	1.60	1.08	1 90	.....	1908
1909	2.48	2.56	....	3.49	4.13	3.20	4.40	3.60	2.71	2.60	2.80	1.30	.....	1909
1910	4.80	2.21	1.10	....	3.05	2.50	1.00	1.37	4.85	3.90	3.98	2.99	.....	1910
1911	....	1.16	1 85	3.03	1.95	1.80	.80	3.28	5.33	3.85	....	1.51	.....	1911
1912	1.38	1.49	2.91	5.12	3.62	1.80	6.88	4.74	4.34	2.40	.20	1.89	36.77	1912
Av. ...	3.22	2.45	3.36	3.91	3.65	3 18	4.51	4.05	3 65	2 59	2.90	3.28	.....	....

TABLE XII: MONTHLY RAINFALL AT DISTRICT TEST-FARMS—Continued.

Rainfall—inches

Date	January	February	March	April	May	June	July	August	September	October	November	December	Year	Date
Germantown														
1905	....	....	....	3.45	7.70	3.00	3.80	7.90	3.56	4 10	2.24	2.28	.....	1905
1906	2.92	1.07	6.93	1.88	1.34	2.88	6.24	7.46	2.30	1.65	3.80	4.32	42.79	1906
1907	7.22	.32	6.25	2.26	3.20	3.65	4.10	1.93	5.64	2.92	3.25	3.22	43.96	1907
1908	2.11	6.33	4.24	4.53	4.47	1.42	3.86	1.36	.35	.27	1.70	1.31	31 95	1908
1909	3.41	7.67	2 07	5.58	6 98	5.93	4.50	3.34	.89	3.13	1.95	4.00	49 45	1909
1910	3.00	4.25	.10	1.87	5.08	1.58	3.95	1.11	3.96	7.60	.96	2.85	36.41	1910
1911	5.00	1.46	3.00	6.01	1.36	2.67	1.78	4.56	5.16	4.48	3.06	3.81	42.35	1911
1912	3.23	1.68	4.29	6.51	3.49	2.24	3.78	9.05	2.50	2.79	.72	3.30	43.58	1912
Av.....	3.84	3.28	3.84	4.01	4.20	2.92	4.00	4.59	3.05	3.37	2.21	3.14	41.50	....
Carpenter														
1903	....	....	....	3.75	5.69	5.07	4.23	1.02	1.02	2.60	2.73	3.28	.....	1903
1904	3.74	2.89	5.07	3.03	2.69	3.16	3.79	2.71	2.08	1.10	.18	3.40	33 84	1904
1905	1.02	1.35	4.07	2 70	7.02	5.11	3.77	4.11	1.02	5.20	2.45	3.51	41.33	1905
1906	3.58	1.85	3.82	1.43	1.40	6.39	1.40	2.92	3 24	2.58	3.50	3.50	35.61	1906
1907	8.94	2.28	6.13	3.57	3.47	4.49	4.84	4.10	2.94	2.38	2.14	1.72	47.00	1907
1908	1.37	4.31	7.80	5.15	4.36	2.92	3.74	3.50	.48	.85	1.37	2.13	37.98	1908
1909	3.05	5.72	2.77	4.10	4.29	7.65	4.18	2 18	.86	2.12	.90	2.05	39.85	1909
1910	6.40	4.70	.20	3.23	2.91	2.35	3 40	1.74	.99	1.68	1.42	2.80	31.82	1910
1911	5.56	3.08	2.26	3.90	2.06	6.14	1.19	4.69	5.18	3.68	2.20	4.01	43.95	1911
1912	1.48	2.44	3.39	4.04	2.90	2.92	5.46	2.56	2.51	1.80	.38	2.09	.....	1912
Av.....	3.90	3.18	3.95	3.49	3.68	4.62	3.60	2.95	2.03	2.39	1.73	2.86	38.92	....